

SEQUENCE LISTING

<110> INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE
 INSTITUT DES VAISSEaux ET DU SANG
 CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE
 PLOUET, Jean
 LECONTE, Laurence
 LEJMI, Esma

<120> MUTATED NETRIN 4, FRAGMENTS THEREOF AND USES THEREOF AS DRUGS

<130> WOB 06 CX INS NET4

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<170> PatentIn version 3.4

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 <213> Homo sapiens

<220>
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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
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Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
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Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
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Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
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His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
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Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
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Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
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Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn	Gly	
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Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	
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Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro			
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Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser			
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Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro			
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Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly			
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Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu			
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Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val			
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Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys			
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Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His			
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1884

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35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
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Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
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Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
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His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
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His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
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210 215 220

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Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
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Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
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Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
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Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
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His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
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Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
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Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
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Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro

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 Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
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 Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
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 Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
 485 490 495
 Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
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 Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
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 Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
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Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	Ala	Asp	Thr	
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Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	
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Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	Asn	Ala	Ala	
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Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	Ser	Ser	Phe	
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cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	cac	aga	gaa	288
Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	His	Arg	Glu	
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Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	His	Leu	Ile	
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Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	Asp	Arg	Ser	
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Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	
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tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	aag	ggc	gct	480
Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	Lys	Gly	Ala	
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Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	
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Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	Arg	Val	Gln	
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Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly	
260 265 270	
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Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys	
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Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr	
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Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp	
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acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt	1008
Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser	
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Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser	
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tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg	1248
Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met	
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Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys	
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Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala	
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Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr	Leu	Gly	Lys		
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Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys		
			500					505					510				
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Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys		
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Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	Asn	Ala	Ala		
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Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	Ser	Ser	Phe		
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Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
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Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
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Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
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Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
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Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr
290 295 300

Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp
305 310 315 320

Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser
325 330 335

Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys
340 345 350

Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser
355 360 365

Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala
370 375 380

Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp
385 390 395 400

Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met
405 410 415

Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys
420 425 430

Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr
435 440 445

Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn
450 455 460

Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala
465 470 475 480

Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Lys
485 490 495

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
500 505 510

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
515 520 525

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
530 535 540

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
545 550 555 560

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
565 570 575

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
580 585 590

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
595 600 605

Ser

<210> 5
<211> 765
<212> DNA
<213> Homo sapiens

<220>
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<222> (1)..(765)

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Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His Gly
1 5 10 15
ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg aag 96
Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly Lys
20 25 30
tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt gcc 144
Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala
35 40 45
ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc aaa acg ggg 192
Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr Gly
50 55 60
gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat gct gat acc 240
Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp Thr
65 70 75 80
tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt 288
Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly
85 90 95
ggg gtc tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc cag 336
Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln
100 105 110
agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gct 384
Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala
115 120 125
cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga tca gct gtc 432
Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala Val

130	135	140	
ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc			480
Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys			
145	150	155	160
cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg			528
Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val			
	165	170	175
gga tac tgg ggc ttc gga gac tat ggc tgt cga cca tgt gac tgt gca			576
Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys Ala			
	180	185	190
ggg agc tgt gac cct atc acc gga gac tgc atc agc agc cac aca gac			624
Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr Asp			
	195	200	205
ata gac tgg tat cat gaa gtt cct gac ttc cgt ccc gtg cac aat aag			672
Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn Lys			
	210	215	220
agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg ttt tct gca ctt			720
Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala Leu			
225	230	235	240
cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca tta gga aag			765
Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Lys			
	245	250	255

<210> 6
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 6

Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His Gly
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Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly Lys
20 25 30

Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala
35 40 45

Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr Gly
50 55 60

Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp Thr
65 70 75 80

Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly
85 90 95

Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln
100 105 110

Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala
115 120 125

Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala Val
130 135 140

Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys
145 150 155 160

Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val
165 170 175

Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys Ala
180 185 190

Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr Asp
195 200 205

Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn Lys
210 215 220

Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala Leu
225 230 235 240

Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Lys
245 250 255

<210> 7
<211> 1545
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1545)

<400> 7
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
1 5 10 15
gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144

Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	
		35					40					45				
gca	gac	acc	acc	tgc	ggt	cag	aat	gct	acc	gaa	ctg	tac	tgc	ttc	tac	192
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
	50					55					60					
agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70					75					80	
aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		
tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	816
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	

	275					280					285								
gtc Val	cat His	ggg Gly	aag Lys	tgt Cys	atg Met	tgt Cys	aag Lys	cac His	aac Asn	aca Thr	gca Ala	ggc Gly	agc Ser	cac His	tgc Cys	912			
	290					295					300								
cag Gln	cac His	tgt Cys	gcc Ala	ccg Pro	tta Leu	tac Tyr	aat Asn	gac Asp	cgg Arg	cca Pro	tgg Trp	gag Glu	gca Ala	gct Ala	gac Asp	960			
305					310					315					320				
ggc Gly	aaa Lys	acg Thr	ggg Gly	gct Ala	ccc Pro	aac Asn	gag Glu	tgc Cys	aga Arg	acc Thr	cgc Arg	aag Lys	tgt Cys	aat Asn	ggg Gly	1008			
325					330					335					340				
cat His	gct Ala	gat Asp	acc Thr	tgt Cys	cac His	ttc Phe	gac Asp	gtt Val	aat Asn	gtg Val	tgg Trp	gag Glu	gca Ala	tca Ser	ggg Gly	1056			
340					345					350					355				
agt Ser	cgt Arg	agt Ser	ggg Gly	ggg Gly	gtc Val	tgt Cys	gat Asp	gac Asp	tgt Cys	cag Gln	cac His	aac Asn	aca Thr	gaa Glu	gga Gly	1104			
355					360					365					370				
cag Gln	tat Tyr	tgc Cys	cag Gln	agg Arg	tgc Cys	aag Lys	cca Pro	ggc Gly	ttc Phe	tat Tyr	cgt Arg	gac Asp	ctg Leu	cgg Arg	aga Arg	1152			
370					375					380					385				
ccc Pro	ttc Phe	tca Ser	gct Ala	cca Pro	gat Asp	gct Ala	tgc Cys	aaa Lys	cgg Pro	tgt Cys	tcc Ser	tgc Cys	cat His	cca Pro	gta Val	1200			
385					390					395					400				
gga Gly	tca Ser	gct Ala	gtc Val	ctt Leu	cct Pro	gcc Ala	aac Asn	tca Ser	gtg Val	acc Thr	ttc Phe	tgc Cys	gac Asp	ccc Pro	agc Ser	1248			
405					410					415					420				
aat Asn	ggg Gly	gac Asp	tgc Cys	cct Pro	tgc Cys	aag Lys	cct Pro	ggg Gly	gtg Val	gca Ala	ggg Gly	cga Arg	cgt Arg	tgt Cys	gac Asp	1296			
420					425					430					435				
agg Arg	tgc Cys	atg Met	gtg Val	gga Gly	tac Tyr	tgg Trp	ggc Gly	ttc Phe	gga Gly	gac Asp	tat Tyr	ggc Gly	tgt Cys	cga Arg	cca Pro	1344			
435					440					445					450				
tgt Cys	gac Asp	tgt Cys	gca Ala	ggg Gly	agc Ser	tgt Cys	gac Asp	cct Pro	atc Ile	acc Thr	gga Gly	gac Asp	tgc Cys	atc Ile	agc Ser	1392			
450					455					460					465				
agc Ser	cac His	aca Thr	gac Asp	ata Ile	gac Asp	tgg Trp	tat Tyr	cat His	gaa Glu	gtt Val	cct Pro	gac Asp	ttc Phe	cgt Arg	ccc Pro	1440			
465					470					475					480				
gtg Val	cac His	aat Asn	aag Lys	agc Ser	gaa Glu	cca Pro	gcc Ala	tgg Trp	gag Glu	tgg Trp	gag Glu	gat Asp	gcg Ala	cag Gln	ggg Gly	1488			
485					490					495					500				
ttt Phe	tct Ser	gca Ala	ctt Leu	cta Leu	cac His	tca Ser	ggg Gly	aaa Lys	tgc Cys	gaa Glu	tgt Cys	aag Lys	gaa Glu	cag Gln	aca Thr	1536			
500					505					510					515				
tta Leu	gga Gly	aag Lys														1545			
515					520					525					530				

<210> 8
<211> 515
<212> PRT
<213> Homo sapiens

<400> 8

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser

450

455

460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
 465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
 485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
 500 505 510

Leu Gly Lys
 515

<210> 9
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 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1452)

<400> 9
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 Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
 1 5 10 15
 tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
 Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
 20 25 30
 tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag 144
 Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
 35 40 45
 tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca 192
 Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
 50 55 60
 gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat 240
 Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
 65 70 75 80
 gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc 288
 Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
 85 90 95
 act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg 336
 Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
 100 105 110
 ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac 384
 Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
 115 120 125

ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc	432
Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val	
130 135 140	
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc	480
Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys	
145 150 155 160	
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca	528
Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr	
165 170 175	
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac	576
Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn	
180 185 190	
ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat	624
Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn	
195 200 205	
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat	672
Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp	
210 215 220	
ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc	720
Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys	
225 230 235 240	
ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac	768
Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His	
245 250 255	
atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac	816
Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His	
260 265 270	
tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct	864
Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala	
275 280 285	
gac ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat	912
Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn	
290 295 300	
ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca	960
Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser	
305 310 315 320	
ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa	1008
Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu	
325 330 335	
gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg	1056
Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg	
340 345 350	
aga ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca	1104
Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro	
355 360 365	

gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc	1152
Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro	
370 375 380	

agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt	1200
Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys	
385 390 395 400	

gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga	1248
Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg	
405 410 415	

cca tgt gac tgt gca ggg agc tgt gac cct atc acc gga gac tgc atc	1296
Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile	
420 425 430	

agc agc cac aca gac ata gac tgg tat cat gaa gtt cct gac ttc cgt	1344
Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg	
435 440 445	

ccc gtg cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag	1392
Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln	
450 455 460	

ggg ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag	1440
Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln	
465 470 475 480	

aca tta gga aag	1452
Thr Leu Gly Lys	

<210> 10
 <211> 484
 <212> PRT
 <213> Homo sapiens

<400> 10

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
1 5 10 15

Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30

Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45

Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60

Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
65 70 75 80

Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe

85

90

95

Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
 100 105 110

Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
 115 120 125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
 130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
 145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
 165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
 180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
 195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
 210 215 220

Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys
 225 230 235 240

Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His
 245 250 255

Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His
 260 265 270

Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala
 275 280 285

Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn
 290 295 300

Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser
 305 310 315 320

Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu
 325 330 335

Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg
 340 345 350

Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro
 355 360 365

Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro
 370 375 380

Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys
 385 390 395 400

Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg
 405 410 415

Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile
 420 425 430

Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg
 435 440 445

Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln
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Thr Leu Gly Lys

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 tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
 Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
 20 25 30

tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys 35 40 45	144
tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala 50 55 60	192
gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp 65 70 75 80	240
gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe 85 90 95	288
act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val 100 105 110	336
ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr 115 120 125	384
ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val 130 135 140	432
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys 145 150 155 160	480
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr 165 170 175	528
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn 180 185 190	576
ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn 195 200 205	624
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp 210 215 220	672
ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys 225 230 235 240	720
ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His 245 250 255	768
atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His 260 265 270	816
tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct	864

Cys	Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala		
		275					280					285					
gac	ggc	aaa	acg	ggg	gct	ccc	aac	gag	tgc	aga	acc	cgc	aag	tgt	aat	912	
Asp	Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn		
	290					295					300						
ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	960	
Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser		
305					310					315					320		
ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	1008	
Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu		
				325					330					335			
gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	1056	
Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg		
			340					345					350				
aga	ccc	ttc	tca	gct	cca	gat	gct	tgc	aaa	ccg	tgt	tcc	tgc	cat	cca	1104	
Arg	Pro	Phe	Ser	Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	Cys	His	Pro		
		355					360					365					
gta	gga	tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	1152	
Val	Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro		
	370					375					380						
agc	aat	ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	1200	
Ser	Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys		
385					390					395					400		
gac	agg	tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	tgt	cga	1248	
Asp	Arg	Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Cys	Arg		
			405					410						415			
cca	tgt	gac	tgt	gca	ggg	agc	tgt	gac	cct	atc	acc	gga	gac	tgc	atc	1296	
Pro	Cys	Asp	Cys	Ala	Gly	Ser	Cys	Asp	Pro	Ile	Thr	Gly	Asp	Cys	Ile		
			420					425					430				
agc	agc	cac	aca	gac	ata	gac	tgg	tat	cat	gaa	gtt	cct	gac	ttc	cgt	1344	
Ser	Ser	His	Thr	Asp	Ile	Asp	Trp	Tyr	His	Glu	Val	Pro	Asp	Phe	Arg		
		435					440					445					
ccc	gtg	cac	aat	aag	agc	gaa	cca	gcc	tgg	gag	tgg	gag	gat	gcg	cag	1392	
Pro	Val	His	Asn	Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln		
	450					455					460						
ggg	ttt	tct	gca	ctt	cta	cac	tca	ggg	aaa	tgc	gaa	tgt	aag	gaa	cag	1440	
Gly	Phe	Ser	Ala	Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln		
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aca	tta	gga	aag	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	1488	
Thr	Leu	Gly	Lys	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val		
			485					490						495			
cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggg	act	cat	gtt	gag	1536	
Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu		
			500					505					510				
gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	1584	
Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile		

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ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga			1632
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly			
530	535	540	
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga			1680
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly			
545	550	555	560
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt			1728
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe			
	565	570	575
gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta			1776
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu			
	580	585	590
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Lys Glu Ser Ala Ser			
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Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys			
	35	40	45
Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala			
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Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp			
65	70	75	80
Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe			
	85	90	95
Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val			
	100	105	110
Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr			
	115	120	125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
210 215 220

Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys
225 230 235 240

Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His
245 250 255

Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His
260 265 270

Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala
275 280 285

Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn
290 295 300

Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser
305 310 315 320

Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu
325 330 335

Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg
340 345 350

Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro
355 360 365

Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro
370 375 380

Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys
385 390 395 400

Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg
405 410 415

Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile
420 425 430

Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg
435 440 445

Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln
450 455 460

Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln
465 470 475 480

Thr Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
485 490 495

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
500 505 510

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
515 520 525

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
530 535 540

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
545 550 555 560

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
565 570 575

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
580 585 590

Lys Glu Ser Ala Ser
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 <213> Homo sapiens

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 <222> (1)..(1119)

<400> 13

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1 5 10 15	
gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa	96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	
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gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg	144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
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Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	

aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc gcc aag gca ttc tgt gga atg aaa tat tca tat gtg	816
Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val	
260 265 270	
cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag	864
Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu	
275 280 285	
gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att	912
Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile	
290 295 300	
ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga	960
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly	
305 310 315 320	
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga	1008
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly	
325 330 335	
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt	1056
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe	
340 345 350	
gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta	1104
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu	
355 360 365	
aaa gag agt gca agt	1119
Lys Glu Ser Ala Ser	
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<210> 14
 <211> 373
 <212> PRT
 <213> Homo sapiens

<400> 14

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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
260 265 270

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu

275

280

285

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
 290 295 300

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
 305 310 315 320

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
 325 330 335

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
 340 345 350

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
 355 360 365

Lys Glu Ser Ala Ser
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<210> 15
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 <212> DNA
 <213> Homo sapiens

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ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg aag 96
 Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly Lys
 20 25 30

tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt gcc 144
 Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala
 35 40 45

ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc aaa acg ggc 192
 Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr Gly
 50 55 60

gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat gct gat acc 240
 Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp Thr
 65 70 75 80

tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt 288
 Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly
 85 90 95

ggc gtc tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc cag	336
Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln	
100 105 110	
agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gct	384
Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala	
115 120 125	
cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga tca gct gtc	432
Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala Val	
130 135 140	
ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc	480
Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys	
145 150 155 160	
cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg	528
Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val	
165 170 175	
gga tac tgg ggc ttc gga gac tat ggc tgt cga cca tgt gac tgt gca	576
Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys Ala	
180 185 190	
ggg agc tgt gac cct atc acc gga gac tgc atc agc agc cac aca gac	624
Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr Asp	
195 200 205	
ata gac tgg tat cat gaa gtt cct gac ttc cgt ccc gtg cac aat aag	672
Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn Lys	
210 215 220	
agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg ttt tct gca ctt	720
Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala Leu	
225 230 235 240	
cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca tta gga aag gcc	768
Leu His Ser Gly Lys Cys Glu Cys Lys Leu Gln Thr Leu Gly Lys Ala	
245 250 255	
aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag att	816
Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile	
260 265 270	
tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag att	864
Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile	
275 280 285	
aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga	912
Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg	
290 295 300	
aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca atc	960
Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile	
305 310 315 320	
ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga	1008
Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg	
325 330 335	

aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa	1056
Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys	
340 345 350	

cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt gca agt	1104
Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	
355 360 365	

<210> 16
 <211> 368
 <212> PRT
 <213> Homo sapiens

<400> 16

Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His Gly
1 5 10 15

Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly Lys
20 25 30

Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala
35 40 45

Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr Gly
50 55 60

Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp Thr
65 70 75 80

Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly
85 90 95

Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln
100 105 110

Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala
115 120 125

Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala Val
130 135 140

Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys
145 150 155 160

Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val
165 170 175

Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys Ala

180		185		190
Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr Asp	195	200	205	
Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn Lys	210	215	220	
Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala Leu	225	230	235	240
Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Lys Ala	245	250	255	
Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile	260	265	270	
Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile	275	280	285	
Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg	290	295	300	
Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile	305	310	315	320
Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg	325	330	335	
Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys	340	345	350	
Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	355	360	365	

<210> 17
 <211> 507
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(507)

<400> 17
 cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg
 Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
 1 5 10 15

tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag	96
Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln	
20 25 30	
cac aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat	144
His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr	
35 40 45	
cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc tgt gga atg aaa	192
Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys	
50 55 60	
tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt	240
Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly	
65 70 75 80	
act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc	288
Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr	
85 90 95	
aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca tgg	336
Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp	
100 105 110	
acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac	384
Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr	
115 120 125	
ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat	432
Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn	
130 135 140	
atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc	480
Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val	
145 150 155 160	
atg gat att tta aaa gag agt gca agt	507
Met Asp Ile Leu Lys Glu Ser Ala Ser	
165	

<210> 18
 <211> 169
 <212> PRT
 <213> Homo sapiens

 <400> 18

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val	
1 5 10 15	
Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln	
20 25 30	
His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr	
35 40 45	

Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys
50 55 60

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
65 70 75 80

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
85 90 95

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
100 105 110

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
115 120 125

Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
130 135 140

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
145 150 155 160

Met Asp Ile Leu Lys Glu Ser Ala Ser
165

<210> 19
<211> 1026
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1026)

<400> 19
aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc 48
Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
1 5 10 15
tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30
tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag 144
Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45
tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca 192
Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60
gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat 240
Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp

65	70	75	80	
gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc				288
Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe	85	90	95	
act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg				336
Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val	100	105	110	
ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac				384
Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr	115	120	125	
ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc				432
Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val	130	135	140	
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc				480
Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys	145	150	155	160
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca				528
Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr	165	170	175	
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac				576
Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn	180	185	190	
ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat				624
Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn	195	200	205	
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat				672
Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp	210	215	220	
ttc att gtc aag ggc gcc aag gca ttc tgt gga atg aaa tat tca tat				720
Phe Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr	225	230	235	240
gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt				768
Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val	245	250	255	
gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag				816
Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys	260	265	270	
att ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga				864
Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg	275	280	285	
gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca				912
Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala	290	295	300	
gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc				960
Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser	305	310	315	320

ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att	1008
Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile	
325 330 335	

tta aaa gag agt gca agt	1026
Leu Lys Glu Ser Ala Ser	
340	

<210> 20
 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 20

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
1 5 10 15

Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30

Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45

Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60

Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
65 70 75 80

Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
85 90 95

Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
100 105 110

Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
115 120 125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
210 215 220

Phe Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr
225 230 235 240

Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val
245 250 255

Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys
260 265 270

Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg
275 280 285

Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala
290 295 300

Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser
305 310 315 320

Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile
325 330 335

Leu Lys Glu Ser Ala Ser
340

<210> 21
<211> 1206
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1206)

<400> 21
aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc 48
Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
1 5 10 15

tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe

	20		25		30	
tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag						144
Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys						
	35		40		45	
tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca						192
Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala						
	50		55		60	
gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat						240
Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp						
	65		70		75	80
gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc						288
Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe						
	85		90		95	
act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg						336
Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val						
	100		105		110	
ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tataag tac						384
Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr						
	115		120		125	
ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc						432
Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val						
	130		135		140	
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc						480
Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys						
	145		150		155	160
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca						528
Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr						
	165		170		175	
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac						576
Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn						
	180		185		190	
ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat						624
Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn						
	195		200		205	
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat						672
Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp						
	210		215		220	
ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc						720
Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys						
	225		230		235	240
ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac						768
Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His						
	245		250		255	
atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac						816
Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His						
	260		265		270	

tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct	864
Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala	
275 280 285	
gac gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata	912
Asp Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile	
290 295 300	
aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg	960
Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val	
305 310 315 320	
aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga	1008
Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly	
325 330 335	
aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt	1056
Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys	
340 345 350	
cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat	1104
Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp	
355 360 365	
ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac	1152
Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His	
370 375 380	
tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt	1200
Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser	
385 390 395 400	
gca agt	1206
Ala Ser	

<210> 22
 <211> 402
 <212> PRT
 <213> Homo sapiens

<400> 22

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
1 5 10 15

Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30

Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45

Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60

Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
65 70 75 80

Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
85 90 95

Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
100 105 110

Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
115 120 125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
210 215 220

Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys
225 230 235 240

Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His
245 250 255

Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His
260 265 270

Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala
275 280 285

Asp Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile
290 295 300

Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val

305 310 315 320
 Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly
 325 330 335
 Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys
 340 345 350
 Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp
 355 360 365
 Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His
 370 375 380
 Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser
 385 390 395 400

Ala Ser

<210> 23
 <211> 1194
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1194)

<400> 23
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 Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
 1 5 10 15
 tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
 Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
 20 25 30
 tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag 144
 Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
 35 40 45
 tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca 192
 Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
 50 55 60
 gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat 240
 Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
 65 70 75 80
 gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc 288
 Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
 85 90 95

act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg	336
Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val	
100 105 110	
ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac	384
Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr	
115 120 125	
ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc	432
Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val	
130 135 140	
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc	480
Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys	
145 150 155 160	
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca	528
Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr	
165 170 175	
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac	576
Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn	
180 185 190	
ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat	624
Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn	
195 200 205	
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat	672
Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp	
210 215 220	
ttc att gtc aag ggc cgc aag tgt aat ggg cat gct gat acc tgt cac	720
Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His	
225 230 235 240	
ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc	768
Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val	
245 250 255	
tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc	816
Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys	
260 265 270	
aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca	864
Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala	
275 280 285	
ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca	912
Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser	
290 295 300	
gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag	960
Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys	
305 310 315 320	
gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta	1008
Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu	
325 330 335	

tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	1056
Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	
			340					345					350			

cct	ggg	ttg	gaa	tac	ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	1104
Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	
		355					360					365				

aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	1152
Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	
	370					375					380					

ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	agt	gca	agt			1194
Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser			
385					390					395						

<210> 24
 <211> 398
 <212> PRT
 <213> Homo sapiens

<400> 24

Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu
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Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe
			20					25					30		

Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys
		35					40					45			

Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala
	50					55					60				

Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp
65					70					75					80

Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe
				85					90					95	

Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val
			100					105					110		

Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr
		115					120					125			

Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val
	130					135					140				

Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

145		150		155		160
Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr						
		165		170		175
Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn						
		180		185		190
Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn						
		195		200		205
Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp						
		210		215		220
Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His						
		225		230		235
				235		240
Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val						
		245		250		255
Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys						
		260		265		270
Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala						
		275		280		285
Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser						
		290		295		300
Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys						
		305		310		315
				315		320
Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu						
		325		330		335
Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn						
		340		345		350
Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly						
		355		360		365
Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser						
		370		375		380
Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser						
		385		390		395

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<220>
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1 5 10 15	
tggtg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc	96
Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe	
20 25 30	
tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag	144
Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys	
35 40 45	
tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca	192
Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala	
50 55 60	
gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat	240
Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp	
65 70 75 80	
gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc	288
Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe	
85 90 95	
act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg	336
Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val	
100 105 110	
ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac	384
Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr	
115 120 125	
ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc	432
Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val	
130 135 140	
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc	480
Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys	
145 150 155 160	
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca	528
Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr	
165 170 175	
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac	576
Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn	
180 185 190	

ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat	624
Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn	
195 200 205	
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat	672
Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp	
210 215 220	
ttc att gtc aag ggc ccg tgt tcc tgc cat cca gta gga tca gct gtc	720
Phe Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val	
225 230 235 240	
ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc	768
Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys	
245 250 255	
cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg	816
Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val	
260 265 270	
gga tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc tgt gga atg	864
Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met	
275 280 285	
aaa tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa	912
Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys	
290 295 300	
ggg act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct	960
Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser	
305 310 315 320	
acc aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca	1008
Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser	
325 330 335	
tgg acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa	1056
Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu	
340 345 350	
tac ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg	1104
Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val	
355 360 365	
aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa	1152
Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys	
370 375 380	
gtc atg gat att tta aaa gag agt gca agt	1182
Val Met Asp Ile Leu Lys Glu Ser Ala Ser	
385 390	

<210> 26
 <211> 394
 <212> PRT
 <213> Homo sapiens

<400> 26

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu

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		20						25					30				
Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys		
		35					40					45					
Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala		
	50					55					60						
Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp		
65					70					75					80		
Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe		
				85					90					95			
Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val		
			100					105						110			
Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr		
		115					120					125					
Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val		
	130					135					140						
Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys		
145					150					155					160		
Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr		
				165					170					175			
Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn		
			180					185					190				
Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn		
		195					200					205					
Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp		
	210					215					220						
Phe	Ile	Val	Lys	Gly	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	Ser	Ala	Val		
225					230					235					240		
Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	Gly	Asp	Cys		
				245					250					255			

Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val
 260 265 270

Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met
 275 280 285

Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys
 290 295 300

Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser
 305 310 315 320

Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser
 325 330 335

Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu
 340 345 350

Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val
 355 360 365

Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys
 370 375 380

Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 385 390

<210> 27
 <211> 1299
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1299)

<400> 27
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
 1 5 10 15

gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912

Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys		
290						295					300						
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	960	
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp		
305					310					315					320		
gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	1008	
Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys		
				325					330					335			
att	tta	tca	gct	cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	aat	gtg	aag	1056	
Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys		
			340					345					350				
att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	1104	
Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys		
		355					360					365					
cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	1152	
Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro		
		370				375					380						
atc	ctc	aat	cct	ggg	ttg	gaa	tac	ctt	gca	gca	gga	cat	gag	gat	ata	1200	
Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile		
385					390					395					400		
aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1248	
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp		
				405					410					415			
aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	agt	gca	1296	
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala		
			420					425					430				
agt																1299	
Ser																	

<210> 28
 <211> 433
 <212> PRT
 <213> Homo sapiens

<400> 28

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Arg	Thr	Val	Val
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Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys
			20					25					30		
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp
		35					40					45			
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr
	50					55					60				

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
 305 310 315 320

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
 325 330 335

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
 340 345 350

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
 355 360 365

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 370 375 380

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
 385 390 395 400

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
 405 410 415

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
 420 425 430

Ser

<210> 29
 <211> 1287
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1287)

<400> 29
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192

Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
50						55					60					
agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70					75					80	
aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		
tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	816
Ile	Val	Lys	Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	
			260					265					270			
gac	gtt	aat	gtg	tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	864
Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	
		275					280					285				
gat	gac	tgt	cag	cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	912
Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	

290	295	300	
cca ggc ttc tat cgt gac	ctg cgg aga ccc ttc tca gcc aag gca ttc		960
Pro Gly Phe Tyr Arg	Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe		
305	310 315 320		
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct		1008	
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala			
	325 330 335		
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc		1056	
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val			
	340 345 350		
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat		1104	
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr			
	355 360 365		
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct		1152	
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro			
	370 375 380		
ggg ttg gaa tac ctt gca gca gga cat gag gat ata aga acaggc aaa		1200	
Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys			
	385 390 395 400		
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt		1248	
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu			
	405 410 415		
gga aga aaa gtc atg gat att tta aaa gag agt gca agt		1287	
Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser			
	420 425		

<210> 30
 <211> 429
 <212> PRT
 <213> Homo sapiens

<400> 30

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	85	90	95
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	100	105	110
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	115	120	125
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	130	135	140
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	145	150	155
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	165	170	175
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	180	185	190
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	195	200	205
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	210	215	220
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	225	230	235
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	245	250	255
Ile	Val	Lys	Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	260	265	270
Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	275	280	285
Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	290	295	300
Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Lys	Ala	Phe	305	310	315

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
 325 330 335

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 340 345 350

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 355 360 365

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 370 375 380

Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 385 390 395 400

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 405 410 415

Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 420 425

<210> 31
 <211> 1275
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1275)

<400> 31
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Arg Thr Val Val
 1 5 10 15

gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60

agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80

aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp

85										90					95					
tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336				
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val					
			100				105						110							
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384				
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr					
			115				120						125							
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432				
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu					
			130				135						140							
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480				
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe					
145				150						155			160							
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528				
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys					
			165						170			175								
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	ccatgc	act		576				
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr					
			180						185			190								
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624				
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu					
			195			200						205								
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672				
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu					
			210			215						220								
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720				
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp					
225				230						235			240							
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768				
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe					
			245						250			255								
att	gtc	aag	ggc	ccg	tgt	tcc	tgc	cat	cca	gta	gga	tca	gct	gtc	ctt	816				
Ile	Val	Lys	Gly	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	Ser	Ala	Val	Leu					
			260						265			270								
cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	ggt	gac	tgc	cct	864				
Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	Gly	Asp	Cys	Pro					
			275			280						285								
tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	tgc	atg	gtg	gga	912				
Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	Cys	Met	Val	Gly					
			290			295						300								
tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa	960				
Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys					
305				310						315			320							
tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggt	1008				
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly					
			325						330			335								

act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc	1056
Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr	
340 345 350	

aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca tgg	1104
Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp	
355 360 365	

acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac	1152
Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr	
370 375 380	

ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat	1200
Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn	
385 390 395 400	

atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc	1248
Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val	
405 410 415	

atg gat att tta aaa gag agt gca agt	1275
Met Asp Ile Leu Lys Glu Ser Ala Ser	
420 425	

<210> 32
 <211> 425
 <212> PRT
 <213> Homo sapiens

<400> 32

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu
260 265 270

Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro
275 280 285

Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly
290 295 300

Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys
305 310 315 320

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
325 330 335

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
340 345 350

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp

355

360

365

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
 370 375 380

Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
 385 390 395 400

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
 405 410 415

Met Asp Ile Leu Lys Glu Ser Ala Ser
 420 425

<210> 33
 <211> 687
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(687)

<400> 33
 agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct gtt cat ggc 48
 Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His Gly
 1 5 10 15
 ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg aag 96
 Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly Lys
 20 25 30
 tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt gcc 144
 Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala
 35 40 45
 ccg tta tac aat gac cgg cca tgg gag gca gct gac cgc aag tgt aat 192
 Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg Lys Cys Asn
 50 55 60
 ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca 240
 Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser
 65 70 75 80
 ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa 288
 Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu
 85 90 95
 gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg 336
 Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg
 100 105 110
 aga ccc ttc tca gcc aag gca ttc tgt gga atg aaa tat tca tat gtg 384
 Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
 115 120 125

cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggt	act	cat	gtt	gag	432
Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	
	130					135					140					

gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	480
Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	
	145				150					155					160	

ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	528
Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	
			165						170					175		

tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gca	gca	gga	576
Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	
			180					185					190			

cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	624
His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	
		195					200					205				

gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	672
Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	
	210					215					220					

aaa	gag	agt	gca	agt												687
Lys	Glu	Ser	Ala	Ser												
225																

<210> 34
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 34

Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	Pro	Val	His	Gly
1				5					10					15	

Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	Val	His	Gly	Lys
			20					25					30		

Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln	His	Cys	Ala
	35						40					45			

Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Arg	Lys	Cys	Asn
	50					55					60				

Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser
65					70					75					80

Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu
				85					90						95

Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg
 100 105 110

Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
 115 120 125

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
 130 135 140

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
 145 150 155 160

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
 165 170 175

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
 180 185 190

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
 195 200 205

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
 210 215 220

Lys Glu Ser Ala Ser
 225

<210> 35
 <211> 663
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(663)

<400> 35
 cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg 48
 Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
 1 5 10 15
 tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag 96
 Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
 20 25 30
 cac aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat 144
 His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
 35 40 45
 cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat cca gta gga 192
 Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly

50	55	60	
tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat			240
Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn			
65	70	75	80
ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg			288
Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg			
	85	90	95
tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc			336
Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe			
	100	105	110
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct			384
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala			
	115	120	125
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc			432
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val			
	130	135	140
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga acattta tat			480
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr			
	145	150	155
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct			528
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro			
	165	170	175
ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc aaa			576
Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys			
	180	185	190
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt			624
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu			
	195	200	205
gga aga aaa gtc atg gat att tta aaa gag agt gca agt			663
Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser			
	210	215	220

<210> 36
 <211> 221
 <212> PRT
 <213> Homo sapiens

<400> 36

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
1 5 10 15

Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
20 25 30

His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
35 40 45

Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly
 50 55 60

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
 65 70 75 80

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
 85 90 95

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe
 100 105 110

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
 115 120 125

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 130 135 140

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 145 150 155 160

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 165 170 175

Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 180 185 190

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 195 200 205

Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 210 215 220

<210> 37
 <211> 843
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(843)

<400> 37
 agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct gtt cat ggc 48
 Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His Gly
 1 5 10 15

ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg aag 96

Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	Val	His	Gly	Lys	
			20					25					30			
tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	cag	cac	tgt	gcc	144
Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln	His	Cys	Ala	
		35					40					45				
ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	cgc	aag	tgt	aat	192
Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Arg	Lys	Cys	Asn	
	50					55					60					
ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	240
Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	
65					70				75						80	
ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	288
Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	
			85					90						95		
gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	336
Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	
			100					105					110			
aga	ccc	ttc	tca	ccg	tgt	tcc	tgc	cat	cca	gta	gga	tca	gct	gtc	ctt	384
Arg	Pro	Phe	Ser	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	Ser	Ala	Val	Leu	
		115					120					125				
cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	ggg	gac	tgc	cct	432
Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	Gly	Asp	Cys	Pro	
	130					135					140					
tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	tgc	atg	gtg	gga	480
Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	Cys	Met	Val	Gly	
145					150					155					160	
tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa	528
Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	
			165					170						175		
tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggg	576
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	
			180					185						190		
act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	624
Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	
		195					200					205				
aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	672
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	
	210					215					220					
acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggg	ttg	gaa	tac	720
Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	
225					230					235					240	
ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	768
Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	
			245						250					255		
atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	816
Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	

260 265 270 843
 atg gat att tta aaa gag agt gca agt
 Met Asp Ile Leu Lys Glu Ser Ala Ser
 275 280

 <210> 38
 <211> 281
 <212> PRT
 <213> Homo sapiens

 <400> 38

 Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His Gly
 1 5 10 15

 Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly Lys
 20 25 30

 Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys Ala
 35 40 45

 Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg Lys Cys Asn
 50 55 60

 Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser
 65 70 75 80

 Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu
 85 90 95

 Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg
 100 105 110

 Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu
 115 120 125

 Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro
 130 135 140

 Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly
 145 150 155 160

 Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys
 165 170 175

 Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
 180 185 190

Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr
		195					200					205			

Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp
	210					215					220				

Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr
225					230					235					240

Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn
				245					250					255	

Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val
			260					265					270		

Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser
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<210> 39
 <211> 1467
 <212> DNA
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<220>
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<400> 39	
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val	
1 5 10 15	
gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa	96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	
20 25 30	
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg	144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336

Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	816
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
		275					280					285				
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	
		290				295					300					
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	960
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
305					310					315					320	
cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	1008
Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	
				325					330					335		
tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	1056
Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	

340										345					350					
cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	1104				
His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr					
355						360						365								
cgt	gac	ctg	cgg	aga	ccc	ttc	tca	gcc	aag	gca	ttc	tgt	gga	atg	aaa	1152				
Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys					
370						375						380								
tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggc	1200				
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly					
385						390						395			400					
act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	1248				
Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr					
			405						410						415					
aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	1296				
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp					
			420						425						430					
acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggc	ttg	gaa	tac	1344				
Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr					
			435						440						445					
ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	1392				
Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn					
450						455						460								
atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	1440				
Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val					
465			470						475						480					
atg	gat	att	tta	aaa	gag	agt	gca	agt								1467				
Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser												
			485																	

<210> 40
 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 40

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Arg	Thr	Val	Val
1				5						10				15	

Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys
			20					25					30		

Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp
		35					40					45			

Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr
	50					55					60				

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
 305 310 315 320

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
 325 330 335

Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
 340 345 350

His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
 355 360 365

Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys
 370 375 380

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
 385 390 395 400

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
 405 410 415

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
 420 425 430

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
 435 440 445

Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
 450 455 460

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
 465 470 475 480

Met Asp Ile Leu Lys Glu Ser Ala Ser
 485

<210> 41
 <211> 1443
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1443)

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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val

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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa				96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	20	25	30	
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg				144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	35	40	45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac				192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	50	55	60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc				240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	65	70	75	80
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac				288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	85	90	95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg				336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	100	105	110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act				384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	115	120	125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg				432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	130	135	140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt				480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	145	150	155	160
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag				528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	165	170	175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act				576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	180	185	190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag				624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	195	200	205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt				672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	210	215	220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac				720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	225	230	235	240
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc				768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	245	250	255	

att gtc aag ggc cgc aag tgt aat ggg cat gct gat acc tgt cac ttc Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe 260 265 270	816
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys 275 280 285	864
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys 290 295 300	912
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys 305 310 315 320	960
cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys 325 330 335	1008
gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg 340 345 350	1056
cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly 355 360 365	1104
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys 370 375 380	1152
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys 385 390 395 400	1200
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys 405 410 415	1248
cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro 420 425 430	1296
atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile 435 440 445	1344
aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp 450 455 460	1392
aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt gca Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala 465 470 475 480	1440
agt Ser	1443

<210> 42
<211> 481
<212> PRT
<213> Homo sapiens

<400> 42

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu

210

215

220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
 225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
 245 250 255

Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
 260 265 270

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
 275 280 285

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
 290 295 300

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys
 305 310 315 320

His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys
 325 330 335

Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg
 340 345 350

Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly
 355 360 365

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
 370 375 380

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
 385 390 395 400

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
 405 410 415

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 420 425 430

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
 435 440 445

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
 450 455 460

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
 465 470 475 480

Ser

<210> 43
 <211> 1455
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1455)

<400> 43
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
 1 5 10 15
 gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95
 tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110
 cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
 His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125
 cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
 His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
 130 135 140
 gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480
 Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
 145 150 155 160

gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
290 295 300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
305 310 315 320	
ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca	1008
Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser	
325 330 335	
gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg	1056
Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly	
340 345 350	
gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc	1104
Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe	
355 360 365	
gga gac tat ggc gcc aag gca ttc tgt gga atg aaa tat tca tat gtg	1152
Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val	
370 375 380	
cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag	1200
Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu	
385 390 395 400	
gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att	1248

Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile		
				405					410					415			
ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	1296	
Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly		
			420					425					430				
tgc	act	tgt	cca	atc	ctc	aat	cct	ggg	ttg	gaa	tac	ctt	gca	gca	gga	1344	
Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly		
		435					440					445					
cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	1392	
His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe		
	450					455					460						
gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	1440	
Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu		
465					470					475					480		
aaa	gag	agt	gca	agt												1455	
Lys	Glu	Ser	Ala	Ser													
				485													
<210>	44																
<211>	485																
<212>	PRT																
<213>	Homo sapiens																
<400>	44																
Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Arg	Thr	Val	Val		
1				5					10					15			
Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys		
			20					25					30				
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp		
		35					40					45					
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr		
	50					55					60						
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys		
65					70				75						80		
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp		
				85					90					95			
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val		
			100					105					110				
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr		
		115					120					125					

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser
325 330 335

Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly
340 345 350

Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe
355 360 365

Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
 370 375 380

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
 385 390 395 400

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
 405 410 415

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
 420 425 430

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
 435 440 445

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
 450 455 460

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
 465 470 475 480

Lys Glu Ser Ala Ser
 485

<210> 45
 <211> 1374
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1374)

<400> 45
 aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc 48
 Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
 1 5 10 15
 tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
 Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
 20 25 30
 tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag 144
 Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
 35 40 45
 tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca 192
 Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
 50 55 60
 gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat 240

Asp 65	Ser	Ser	Phe	Arg	Phe 70	Pro	Arg	Thr	Trp	Trp 75	Gln	Ser	Ala	Glu	Asp 80	
gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	288
Val	His	Arg	Glu	Lys 85	Ile	Gln	Leu	Asp	Leu 90	Glu	Ala	Glu	Phe	Tyr 95	Phe	
act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	336
Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	
			100					105					110			
ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	384
Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	
		115					120					125				
ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	432
Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	
	130					135					140					
aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	480
Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	
145					150					155					160	
act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	528
Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	
				165					170					175		
gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	576
Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	
			180					185					190			
ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	624
Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	
		195					200					205				
gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	672
Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	
	210					215					220					
ttc	att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	720
Phe	Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	
225					230					235					240	
ata	cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	768
Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	
				245					250					255		
atg	gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	816
Met	Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	
			260					265					270			
tgc	cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	864
Cys	Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	
		275					280					285				
gac	cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	912
Asp	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	
	290					295					300					
gtg	tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	960
Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	

305	310	315	320	
cag cac aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc				1008
Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe	325	330	335	
tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc tgt gga atg				1056
Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met	340	345	350	
aaa tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa				1104
Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys	355	360	365	
ggg act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct				1152
Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser	370	375	380	
acc aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca				1200
Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser	385	390	395	400
tgg acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa				1248
Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu	405	410	415	
tac ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg				1296
Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val	420	425	430	
aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa				1344
Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys	435	440	445	
gtc atg gat att tta aaa gag agt gca agt				1374
Val Met Asp Ile Leu Lys Glu Ser Ala Ser	450	455		

<210> 46
 <211> 458
 <212> PRT
 <213> Homo sapiens

<400> 46

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
1 5 10 15

Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30

Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45

Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60

Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
65 70 75 80

Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
85 90 95

Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
100 105 110

Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
115 120 125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
210 215 220

Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys
225 230 235 240

Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His
245 250 255

Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His
260 265 270

Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala
275 280 285

Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn
290 295 300

Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys
 305 310 315 320

Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe
 325 330 335

Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met
 340 345 350

Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys
 355 360 365

Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser
 370 375 380

Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser
 385 390 395 400

Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu
 405 410 415

Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val
 420 425 430

Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys
 435 440 445

Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 450 455

<210> 47
 <211> 1350
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1350)

<400> 47
 aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc 48
 Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
 1 5 10 15

tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
 Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
 20 25 30

tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag 144
 Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys

35					40					45						
tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	192
Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	
	50					55					60					
gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	240
Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	
65					70					75					80	
gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	288
Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	
				85					90					95		
act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	336
Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	
			100					105						110		
ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	384
Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	
		115					120					125				
ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	432
Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	
	130					135					140					
aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	480
Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	
145					150					155					160	
act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	528
Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	
				165					170					175		
gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	576
Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	
			180					185					190			
ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	624
Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	
		195				200						205				
gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	672
Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	
	210					215					220					
ttc	att	gtc	aag	ggc	cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	720
Phe	Ile	Val	Lys	Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	
225					230					235					240	
ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	ggg	agt	cgt	agt	ggt	ggt	gtc	768
Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	
				245					250					255		
tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	816
Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	
			260					265					270			
aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	aga	ccc	ttc	tca	ccg	tgt	tcc	864
Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Pro	Cys	Ser	
		275					280					285				

tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc	912
Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe	
290 295 300	

tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg	960
Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly	
305 310 315 320	

cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat	1008
Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr	
325 330 335	

ggc gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata	1056
Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile	
340 345 350	

aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg	1104
Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val	
355 360 365	

aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga	1152
Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly	
370 375 380	

aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt	1200
Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys	
385 390 395 400	

cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat	1248
Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp	
405 410 415	

ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac	1296
Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His	
420 425 430	

tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt	1344
Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser	
435 440 445	

gca agt	1350
Ala Ser	
450	

<210> 48
 <211> 450
 <212> PRT
 <213> Homo sapiens

<400> 48

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
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Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30

Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45

Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60

Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
65 70 75 80

Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
85 90 95

Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
100 105 110

Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
115 120 125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
210 215 220

Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His
225 230 235 240

Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val
245 250 255

Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys
260 265 270

Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser

275 280 285
 Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe
 290 295 300
 Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly
 305 310 315 320
 Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr
 325 330 335
 Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile
 340 345 350
 Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val
 355 360 365
 Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly
 370 375 380
 Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys
 385 390 395 400
 Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp
 405 410 415
 Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His
 420 425 430
 Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser
 435 440 445
 Ala Ser
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<210> 49
 <211> 1362
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1362)

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 Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu
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tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe 20 25 30	96
tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys 35 40 45	144
tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala 50 55 60	192
gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp 65 70 75 80	240
gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe 85 90 95	288
act cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val 100 105 110	336
ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr 115 120 125	384
ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val 130 135 140	432
aag aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys 145 150 155 160	480
act gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr 165 170 175	528
gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn 180 185 190	576
ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn 195 200 205	624
gac ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp 210 215 220	672
ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys 225 230 235 240	720
ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His 245 250 255	768

atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac	816
Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His	
260 265 270	
tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct	864
Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala	
275 280 285	
gac ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt cct gcc aac	912
Asp Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn	
290 295 300	
tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct tgc aag cct	960
Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro	
305 310 315 320	
ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc	1008
Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly	
325 330 335	
ttc gga gac tat ggc gcc aag gca ttc tgt gga atg aaa tat tca tat	1056
Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr	
340 345 350	
gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt	1104
Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val	
355 360 365	
gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag	1152
Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys	
370 375 380	
att ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga	1200
Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg	
385 390 395 400	
gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca	1248
Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala	
405 410 415	
gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc	1296
Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser	
420 425 430	
ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att	1344
Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile	
435 440 445	
tta aaa gag agt gca agt	1362
Leu Lys Glu Ser Ala Ser	
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<210> 50
 <211> 454
 <212> PRT
 <213> Homo sapiens

<400> 50

Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu

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Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe				
			20					25					30						
Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys				
		35					40					45							
Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala				
	50					55					60								
Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp				
65					70					75					80				
Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe				
				85					90					95					
Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val				
			100					105						110					
Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr				
		115					120					125							
Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val				
	130					135					140								
Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys				
145					150					155					160				
Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr				
				165					170					175					
Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn				
			180					185					190						
Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn				
		195					200					205							
Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp				
	210					215					220								
Phe	Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys				
225					230					235					240				
Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His				
				245					250					255					

Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His
260 265 270

Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala
275 280 285

Asp Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn
290 295 300

Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro
305 310 315 320

Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly
325 330 335

Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr
340 345 350

Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val
355 360 365

Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys
370 375 380

Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg
385 390 395 400

Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala
405 410 415

Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser
420 425 430

Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile
435 440 445

Leu Lys Glu Ser Ala Ser
450

<210> 51
<211> 1623
<212> DNA
<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(1623)

<400> 51

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Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Arg	Thr	Val	Val	
1				5					10					15		

gcc	gca	gga	ctg	agt	gga	gta	gct	gga	gtg	agt	tcc	cgc	tgt	gaa	aaa	96
Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	
			20					25					30			

gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	cga	aaa	ctc	tgg	144
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	
		35					40					45				

gca	gac	acc	acc	tgc	ggc	cag	aat	gct	acc	gaa	ctg	tac	tgc	ttc	tac	192
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
	50					55					60					

agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70				75						80	

aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90						95	

tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			

cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				

cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					

gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	

gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		

aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			

gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				

aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					

cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
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Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	816
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
		275					280				285					
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	
	290					295					300					
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	960
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
305					310					315					320	
cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	1008
Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	
			325						330					335		
tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	1056
Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	
			340					345					350			
cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	1104
His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	
		355					360					365				
cgt	gac	ctg	cgg	aga	ccc	ttc	tca	ccg	tgt	tcc	tgc	cat	cca	gta	gga	1152
Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	
	370					375					380					
tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	1200
Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	
385					390					395					400	
ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	1248
Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	
			405					410						415		
tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	1296
Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	
			420					425					430			
tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	1344
Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	
		435					440					445				
cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	1392
His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	
	450					455					460					
tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	1440
Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	

465	470	475	480	
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct				1488
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro	485	490	495	
ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc aaa				1536
Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys	500	505	510	
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt				1584
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu	515	520	525	
gga aga aaa gtc atg gat att tta aaa gag agt gca agt				1623
Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	530	535	540	

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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Arg Thr Val Val
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20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
325 330 335

Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
340 345 350

His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
355 360 365

Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly
370 375 380

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
 385 390 395 400

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
 405 410 415

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe
 420 425 430

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
 435 440 445

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 450 455 460

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 465 470 475 480

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 485 490 495

Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 500 505 510

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 515 520 525

Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
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tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc 96
 Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
 20 25 30

tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag 144
 Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys

35					40					45						
tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	192
Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	
	50					55					60					
gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	240
Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	
65					70					75					80	
gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	288
Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	
				85					90					95		
act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	336
Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	
			100					105					110			
ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	384
Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	
		115					120					125				
ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	432
Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	
	130					135					140					
aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	480
Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	
145					150					155					160	
act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	528
Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	
				165					170					175		
gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	576
Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	
			180					185					190			
ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	624
Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	
		195				200						205				
gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	672
Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	
	210					215					220					
ttc	att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	720
Phe	Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	
225					230					235					240	
ata	cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	768
Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	
				245					250					255		
atg	gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	816
Met	Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	
			260					265					270			
tgc	cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	864
Cys	Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	
		275				280						285				

gac cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat	912
Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn	
290 295 300	
gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt	960
Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys	
305 310 315 320	
cag cac aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc	1008
Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe	
325 330 335	
tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat cca gta	1056
Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val	
340 345 350	
gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc	1104
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser	
355 360 365	
aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac	1152
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp	
370 375 380	
agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc aag gca	1200
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala	
385 390 395 400	
ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca	1248
Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser	
405 410 415	
gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag	1296
Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys	
420 425 430	
gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta	1344
Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu	
435 440 445	
tat cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat	1392
Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn	
450 455 460	
cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc	1440
Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly	
465 470 475 480	
aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct	1488
Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser	
485 490 495	
ctt gga aga aaa gtc atg gat att tta aaa gag agt gca agt	1530
Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	
500 505 510	

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Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe
20 25 30

Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys
35 40 45

Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala
50 55 60

Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp
65 70 75 80

Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe
85 90 95

Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val
100 105 110

Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr
115 120 125

Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val
130 135 140

Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys
145 150 155 160

Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr
165 170 175

Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn
180 185 190

Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn
195 200 205

Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp
210 215 220

Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys

225		230		235		240									
Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His
				245					250					255	
Met	Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His
			260					265					270		
Cys	Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala
		275					280					285			
Asp	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn
	290					295					300				
Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys
305					310					315					320
Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe
				325					330					335	
Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Pro	Cys	Ser	Cys	His	Pro	Val
			340					345					350		
Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser
		355					360					365			
Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp
	370					375					380				
Arg	Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala
385					390					395					400
Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser
			405						410					415	
Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys
			420					425					430		
Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu
		435					440					445			
Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn
	450					455					460				
Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly
465					470					475					480

Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser
485 490 495

Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
500 505 510

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Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
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cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc 96
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
20 25 30
acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45
acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc 192
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60
tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc 240
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80
cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa 288
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95
aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att 336
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110
gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc 384
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125
cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac 432
Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140
tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag aag ggc gct 480
Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

att tgt act cct aaa tac tcc agt cct ttt cca tgc act gga gga gag	528
Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu	
165 170 175	
gtt att ttc aaa gct ttg tca cca cca tac gat aca gag aac cct tac	576
Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr	
180 185 190	
agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag	624
Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln	
195 200 205	
ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac ctg aac gaa	672
Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu	
210 215 220	
gag cct caa cat ttt aca cac tat gca atc tat gat ttc att gtc aag	720
Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys	
225 230 235 240	
ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct gtt cat	768
Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His	
245 250 255	
ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg	816
Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly	
260 265 270	
aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt	864
Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys	
275 280 285	
gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc aaa acg	912
Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr	
290 295 300	
ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat gct gat	960
Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp	
305 310 315 320	
acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt	1008
Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser	
325 330 335	
ggg ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc	1056
Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys	
340 345 350	
cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca	1104
Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser	
355 360 365	
gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga tca gct	1152
Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala	
370 375 380	
gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac	1200
Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp	
385 390 395 400	
tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg	1248

Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	Cys	Met	
				405					410					415		
gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	tgt	cga	cca	tgt	gac	tgt	1296
Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Cys	Arg	Pro	Cys	Asp	Cys	
			420					425					430			
gca	ggg	agc	tgt	gac	cct	atc	acc	gga	gac	tgc	atc	agc	agc	cac	aca	1344
Ala	Gly	Ser	Cys	Asp	Pro	Ile	Thr	Gly	Asp	Cys	Ile	Ser	Ser	His	Thr	
		435					440					445				
gac	ata	gac	tgg	tat	cat	gaa	gtt	cct	gac	ttc	cgt	ccc	gtg	cac	aat	1392
Asp	Ile	Asp	Trp	Tyr	His	Glu	Val	Pro	Asp	Phe	Arg	Pro	Val	His	Asn	
	450					455					460					
aag	agc	gaa	cca	gcc	tgg	gag	tgg	gag	gat	gcg	cag	ggg	ttt	tct	gca	1440
Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly	Phe	Ser	Ala	
465					470					475					480	
ctt	cta	cac	tca	ggt	aaa	tgc	gaa	tgt	aag	gaa	cag	aca	tta	gga	aag	1488
Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr	Leu	Gly	Lys	
			485						490					495		
<210>	56															
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1				5					10					15		
Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	Ala	Asp	Thr	
			20					25					30			
Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	
		35					40					45				
Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	Asn	Ala	Ala	
	50					55					60					
Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	Ser	Ser	Phe	
65					70					75					80	
Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	His	Arg	Glu	
				85					90					95		
Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	His	Leu	Ile	
			100					105						110		
Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	Asp	Arg	Ser	
		115					120					125				

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr
290 295 300

Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp
305 310 315 320

Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser
325 330 335

Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys
340 345 350

Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser
355 360 365

Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala
 370 375 380

Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp
 385 390 395 400

Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met
 405 410 415

Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys
 420 425 430

Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr
 435 440 445

Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn
 450 455 460

Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala
 465 470 475 480

Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Lys
 485 490 495

<210> 57
 <211> 1062
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1062)

<400> 57
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 Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
 1 5 10 15
 cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc 96
 Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
 20 25 30
 acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
 Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
 35 40 45
 acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc 192
 Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
 50 55 60
 tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc 240

Tyr 65	Pro	His	Leu	Ala	His 70	Leu	Pro	Ser	Ala	Met 75	Ala	Asp	Ser	Ser	Phe 80	
cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	cac	aga	gaa	288
Arg	Phe	Pro	Arg	Thr 85	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	His	Arg	Glu	
aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	cac	cta	att	336
Lys	Ile	Gln	Leu	Asp 100	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	His	Leu	Ile	
gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	gac	cgc	tcc	384
Val	Met	Phe 115	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	Asp	Arg	Ser	
cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	gcg	act	aac	432
Gln	Asp	Phe	Gly	Lys	Thr 135	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	
tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	aag	ggc	gct	480
Cys	Ser	Ala	Thr	Phe	Gly 150	Leu	Glu	Asp	Asp	Val	Val	Lys	Lys	Gly	Ala	
att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	gga	gga	gag	528
Ile	Cys	Thr	Pro	Lys 165	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	Gly	Gly	Glu	
gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	aac	cct	tac	576
Val	Ile	Phe 180	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	
agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	cgc	gtg	cag	624
Ser	Ala	Lys 195	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	Arg	Val	Gln	
ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	ctg	aac	gaa	672
Leu	Leu	Lys 210	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	Leu	Asn	Glu	
gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	att	gtc	aag	720
Glu	Pro	Gln	His	Phe	Thr 230	His	Tyr	Ala	Ile	Tyr	Asp	Phe	Ile	Val	Lys	
ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	768
Gly	Ala	Lys	Ala	Phe 245	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	
aag	att	tta	tca	gct	cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	aat	gtg	816
Lys	Ile	Leu	Ser	Ala 260	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	
aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	864
Lys	Ile	Lys 275	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	
aag	cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	912
Lys	Arg	Thr	Leu	Tyr 290	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	
cca	atc	ctc	aat	cct	ggg	ttg	gaa	tac	ctt	gca	gca	gga	cat	gag	gat	960
Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	

305		310		315		320	
ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac							1008
Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His							
	325		330		335		
tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt							1056
Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser							
	340		345		350		
gca agt							1062
Ala Ser							

<210> 58
 <211> 354
 <212> PRT
 <213> Homo sapiens

<400> 58

Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
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Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
20 25 30

Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45

Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60

Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile
245 250 255

Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val
260 265 270

Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly
275 280 285

Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys
290 295 300

Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp
305 310 315 320

Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His
325 330 335

Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser
340 345 350

Ala Ser

<210> 59
<211> 1242
<212> DNA
<213> Homo sapiens

<220>
<221> CDS

<222> (1)..(1242)

<400> 59

ctg	agt	gga	gta	gct	gga	gtg	agt	tcc	cgc	tgt	gaa	aaa	gcc	tgc	aac	48
Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	Ala	Cys	Asn	
1			5					10					15			

cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	cga	aaa	ctc	tgg	gca	gac	acc	96
Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	Ala	Asp	Thr	
			20					25				30				

acc	tgc	ggt	cag	aat	gct	acc	gaa	ctg	tac	tgc	ttc	tac	agt	gag	aac	144
Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	
		35					40					45				

acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	aat	gct	gcc	192
Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	Asn	Ala	Ala	
	50					55					60					

tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	tca	tcc	ttc	240
Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	Ser	Ser	Phe	
65					70				75						80	

cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	cac	aga	gaa	288
Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	His	Arg	Glu	
				85				90						95		

aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	cac	cta	att	336
Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	His	Leu	Ile	
			100					105					110			

gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	gac	cgc	tcc	384
Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	Asp	Arg	Ser	
		115					120					125				

cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	gcg	act	aac	432
Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	
	130					135					140					

tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	aag	ggc	gct	480
Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	Lys	Gly	Ala	
145					150					155					160	

att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	gga	gga	gag	528
Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	Gly	Gly	Glu	
				165				170						175		

gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	aac	cct	tac	576
Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	
			180					185					190			

agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	cgc	gtg	cag	624
Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	Arg	Val	Gln	
		195					200					205				

ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	ctg	aac	gaa	672
Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	Leu	Asn	Glu	
	210					215					220					

gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	att	gtc	aag	720
Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	Ile	Val	Lys	

225	230	235	240	
ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct gtt cat				768
Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His	245	250	255	
ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg				816
Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly	260	265	270	
aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt				864
Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys	275	280	285	
gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac gcc aag gca				912
Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Ala Lys Ala	290	295	300	
ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca				960
Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser	305	310	315	320
gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag attaaa aag				1008
Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys	325	330	335	
gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta				1056
Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu	340	345	350	
tat cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat				1104
Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn	355	360	365	
cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc				1152
Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly	370	375	380	
aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct				1200
Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser	385	390	395	400
ctt gga aga aaa gtc atg gat att tta aaa gag agt gca agt				1242
Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	405	410		

<210> 60
 <211> 414
 <212> PRT
 <213> Homo sapiens

<400> 60

Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn				
1	5	10	15	
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr	20	25	30	

Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45

Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60

Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
 275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Ala Lys Ala
 290 295 300

Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser
 305 310 315 320

Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys
 325 330 335

Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu
 340 345 350

Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn
 355 360 365

Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly
 370 375 380

Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser
 385 390 395 400

Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 405 410

<210> 61
 <211> 1230
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1230)

<400> 61
 ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa gcc tgc aac 48
 Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
 1 5 10 15
 cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc 96
 Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
 20 25 30
 acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
 Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
 35 40 45
 acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc 192
 Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala

50		55		60	
tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc	240				
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe					
65 70 75 80					
cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa	288				
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu					
85 90 95					
aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att	336				
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile					
100 105 110					
gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc	384				
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser					
115 120 125					
cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac	432				
Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn					
130 135 140					
tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag aag ggc gct	480				
Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala					
145 150 155 160					
att tgt act cct aaa tac tcc agt cct ttt cca tgc act gga gga gag	528				
Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu					
165 170 175					
gtt att ttc aaa gct ttg tca cca cca tac gat aca gag aac cct tac	576				
Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr					
180 185 190					
agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag	624				
Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln					
195 200 205					
ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac ctg aac gaa	672				
Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu					
210 215 220					
gag cct caa cat ttt aca cac tat gca atc tat gat ttc att gtc aag	720				
Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys					
225 230 235 240					
ggc cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat	768				
Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn					
245 250 255					
gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt	816				
Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys					
260 265 270					
cag cac aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc	864				
Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe					
275 280 285					
tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc tgt gga atg	912				
Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met					
290 295 300					

aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	960
Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	
305					310					315					320	

ggt	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	1008
Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	
				325					330					335		

acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	1056
Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	
			340					345					350			

tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	ttg	gaa	1104
Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	
		355					360					365				

tac	ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	1152
Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	
	370					375					380					

aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	1200
Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	
385					390					395					400	

gtc	atg	gat	att	tta	aaa	gag	agt	gca	agt							1230
Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser							
				405					410							

<210> 62
 <211> 410
 <212> PRT
 <213> Homo sapiens

<400> 62

Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	Ala	Cys	Asn
1				5					10					15	

Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	Ala	Asp	Thr
			20					25					30		

Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	Ser	Glu	Asn
		35					40					45			

Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	Asn	Ala	Ala
	50					55					60				

Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	Ser	Ser	Phe
65					70					75					80

Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	His	Arg	Glu
				85					90					95	

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn
245 250 255

Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys
260 265 270

Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe
275 280 285

Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met
290 295 300

Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys
305 310 315 320

Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser
325 330 335

Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser

340	345	350
Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu		
355	360	365
Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val		
370	375	380
Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys		
385	390	395 400
Val Met Asp Ile Leu Lys Glu Ser Ala Ser		
405	410	

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 <213> Homo sapiens

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Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn	
1 5 10 15	
cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc	96
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr	
20 25 30	
acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac	144
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn	
35 40 45	
acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc	192
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala	
50 55 60	
tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc	240
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe	
65 70 75 80	
cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa	288
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu	
85 90 95	
aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att	336
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile	
100 105 110	
gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc	384
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser	
115 120 125	

cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac	432
Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn	
130 135 140	
tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag aag ggc gct	480
Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala	
145 150 155 160	
att tgt act cct aaa tac tcc agt cct ttt cca tgc act gga gga gag	528
Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu	
165 170 175	
gtt att ttc aaa gct ttg tca cca cca tac gat aca gag aac cct tac	576
Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr	
180 185 190	
agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag	624
Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln	
195 200 205	
ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac ctg aac gaa	672
Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu	
210 215 220	
gag cct caa cat ttt aca cac tat gca atc tat gat ttc att gtc aag	720
Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys	
225 230 235 240	
ggc ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt cct gcc aac	768
Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn	
245 250 255	
tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct tgc aag cct	816
Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro	
260 265 270	
ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc	864
Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly	
275 280 285	
ttc gga gac tat ggc gcc aag gca ttc tgt gga atg aaa tat tca tat	912
Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr	
290 295 300	
gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt	960
Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val	
305 310 315 320	
gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag	1008
Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys	
325 330 335	
att ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga	1056
Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg	
340 345 350	
gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca	1104
Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala	
355 360 365	

gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc	1152
Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser	
370 375 380	

ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att	1200
Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile	
385 390 395 400	

tta aaa gag agt gca agt	1218
Leu Lys Glu Ser Ala Ser	
405	

<210> 64
 <211> 406
 <212> PRT
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<400> 64

Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
1 5 10 15

Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
20 25 30

Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45

Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60

Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu

165

170

175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
 180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
 195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
 210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
 225 230 235 240

Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn
 245 250 255

Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro
 260 265 270

Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly
 275 280 285

Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr
 290 295 300

Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val
 305 310 315 320

Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys
 325 330 335

Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg
 340 345 350

Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala
 355 360 365

Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser
 370 375 380

Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile
 385 390 395 400

Leu Lys Glu Ser Ala Ser
 405

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 <212> DNA
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 Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
 1 5 10 15
 cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc 96
 Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
 20 25 30
 acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
 Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
 35 40 45
 acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc 192
 Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
 50 55 60
 tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc 240
 Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
 65 70 75 80
 cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa 288
 Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
 85 90 95
 aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att 336
 Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
 100 105 110
 gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc 384
 Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
 115 120 125
 cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac 432
 Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
 130 135 140
 tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag aag ggc gct 480
 Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
 145 150 155 160
 att tgt act cct aaa tac tcc agt cct ttt cca tgc act gga gga gag 528
 Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
 165 170 175
 gtt att ttc aaa gct ttg tca cca cca tac gat aca gag aac cct tac 576
 Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
 180 185 190

agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag	624
Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln	
195 200 205	
ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac ctg aac gaa	672
Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu	
210 215 220	
gag cct caa cat ttt aca cac tat gca atc tat gat ttc att gtc aag	720
Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys	
225 230 235 240	
ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct gtt cat	768
Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His	
245 250 255	
ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg	816
Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly	
260 265 270	
aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt	864
Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys	
275 280 285	
gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac cgc aag tgt	912
Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg Lys Cys	
290 295 300	
aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca	960
Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala	
305 310 315 320	
tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca	1008
Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr	
325 330 335	
gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg	1056
Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu	
340 345 350	
cgg aga ccc ttc tca gcc aag gca ttc tgt gga atg aaa tat tca tat	1104
Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr	
355 360 365	
gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt	1152
Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val	
370 375 380	
gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag	1200
Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys	
385 390 395 400	
att ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga	1248
Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg	
405 410 415	
gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca	1296
Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala	
420 425 430	
gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc	1344

Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser		
		435					440					445					
ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att		1392
Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile		
	450					455					460						
tta	aaa	gag	agt	gca	agt												1410
Leu	Lys	Glu	Ser	Ala	Ser												
465					470												
<210>	66																
<211>	470																
<212>	PRT																
<213>	Homo sapiens																
<400>	66																
Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	Ala	Cys	Asn		
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Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	Ala	Asp	Thr		
			20					25						30			
Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	Ser	Glu	Asn		
		35					40					45					
Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	Asn	Ala	Ala		
	50					55					60						
Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	Ser	Ser	Phe		
65					70					75					80		
Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	His	Arg	Glu		
				85					90					95			
Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	His	Leu	Ile		
			100					105						110			
Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	Asp	Arg	Ser		
		115					120					125					
Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	Ala	Thr	Asn		
	130					135					140						
Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	Lys	Gly	Ala		
145					150					155					160		
Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	Gly	Gly	Glu		
				165					170					175			

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg Lys Cys
290 295 300

Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala
305 310 315 320

Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr
325 330 335

Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu
340 345 350

Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr
355 360 365

Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val
370 375 380

Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys
385 390 395 400

Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg
405 410 415

Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala
420 425 430

Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser
435 440 445

Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile
450 455 460

Leu Lys Glu Ser Ala Ser
465 470

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<211> 1386
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1386)

<400> 67
ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa gcc tgc aac 48
Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
1 5 10 15
cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc 96
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
20 25 30
acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45
acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc 192
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60
tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc 240
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80
cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa 288
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95
aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att 336
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110
gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc 384
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125
cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac 432

Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	
130						135					140					
tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	aag	ggc	gct	480
Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	Lys	Gly	Ala	
145					150					155					160	
att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	gga	gga	gag	528
Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	Gly	Gly	Glu	
				165					170					175		
gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	aac	cct	tac	576
Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	
			180					185					190			
agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	cgc	gtg	cag	624
Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	Arg	Val	Gln	
		195					200					205				
ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	ctg	aac	gaa	672
Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	Leu	Asn	Glu	
	210					215					220					
gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	att	gtc	aag	720
Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	Ile	Val	Lys	
225					230					235					240	
ggc	cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	768
Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	
			245					250						255		
gtg	tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	816
Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	
		260						265					270			
cag	cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	864
Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	
		275					280					285				
tat	cgt	gac	ctg	cgg	aga	ccc	ttc	tca	ccg	tgt	tcc	tgc	cat	cca	gta	912
Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Pro	Cys	Ser	Cys	His	Pro	Val	
	290					295					300					
gga	tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	960
Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	
305					310					315					320	
aat	ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	1008
Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	
				325					330					335		
agg	tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	1056
Arg	Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	
			340					345					350			
ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	1104
Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	
		355					360					365				
gct	cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	1152
Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	

370	375	380	
gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta			1200
Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu			
385	390	395	400
tat cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat			1248
Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn			
	405	410	415
cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc			1296
Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly			
	420	425	430
aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct			1344
Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser			
	435	440	445
ctt gga aga aaa gtc atg gat att tta aaa gag agt gca agt			1386
Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser			
	450	455	460

<210> 68
 <211> 462
 <212> PRT
 <213> Homo sapiens

<400> 68

Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn	
1	15
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr	
20	30
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn	
35	45
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala	
50	60
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe	
65	80
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu	
85	95
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile	
100	110
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser	
115	125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn
245 250 255

Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys
260 265 270

Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe
275 280 285

Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val
290 295 300

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
305 310 315 320

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
325 330 335

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala
340 345 350

Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser
355 360 365

Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys
 370 375 380

Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu
 385 390 395 400

Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn
 405 410 415

Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly
 420 425 430

Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser
 435 440 445

Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 450 455 460

<210> 69
 <211> 1398
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1398)

<400> 69
 ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa gcc tgc aac 48
 Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
 1 5 10 15
 cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc 96
 Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
 20 25 30
 acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
 Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
 35 40 45
 acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc 192
 Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
 50 55 60
 tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc 240
 Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
 65 70 75 80
 cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa 288
 Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
 85 90 95
 aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att 336
 Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile

100										105					110					
gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	gac	cgc	tcc	384				
Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	Asp	Arg	Ser					
		115					120					125								
cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	gcg	act	aac	432				
Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	Ala	Thr	Asn					
	130					135					140									
tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	aag	ggc	gct	480				
Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	Lys	Gly	Ala					
145					150					155					160					
att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	gga	gga	gag	528				
Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	Gly	Gly	Glu					
			165						170					175						
gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	aac	cct	tac	576				
Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	Asn	Pro	Tyr					
		180						185					190							
agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	cgc	gtg	cag	624				
Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	Arg	Val	Gln					
		195					200					205								
ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	ctg	aac	gaa	672				
Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	Leu	Asn	Glu					
	210					215					220									
gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	att	gtc	aag	720				
Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	Ile	Val	Lys					
225					230					235					240					
ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	cct	gtt	cat	768				
Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	Pro	Val	His					
			245						250					255						
ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	gtc	cat	ggg	816				
Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	Val	His	Gly					
		260						265					270							
aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	cag	cac	tgt	864				
Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln	His	Cys					
		275					280					285								
gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	ccg	tgt	tcc	912				
Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Pro	Cys	Ser					
		290				295					300									
tgc	cat	cca	gta	gga	tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	960				
Cys	His	Pro	Val	Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe					
305					310					315					320					
tgc	gac	ccc	agc	aat	ggc	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	1008				
Cys	Asp	Pro	Ser	Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly					
			325						330					335						
cga	cgt	tgt	gac	agg	tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	1056				
Arg	Arg	Cys	Asp	Arg	Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr					
			340					345					350							

ggc gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata	1104
Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile	
355 360 365	
aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg	1152
Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val	
370 375 380	
aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga	1200
Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly	
385 390 395 400	
aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt	1248
Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys	
405 410 415	
cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat	1296
Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp	
420 425 430	
ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac	1344
Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His	
435 440 445	
tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt	1392
Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser	
450 455 460	
gca agt	1398
Ala Ser	
465	

<210> 70
 <211> 466
 <212> PRT
 <213> Homo sapiens

<400> 70

Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn	
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Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr	
20 25 30	
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn	
35 40 45	
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala	
50 55 60	
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe	
65 70 75 80	

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Pro Cys Ser
290 295 300

Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe
305 310 315 320

Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly

325	330	335
Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr		
340	345	350
Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile		
355	360	365
Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val		
370	375	380
Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly		
385	390	395
Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys		
405	410	415
Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp		
420	425	430
Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His		
435	440	445
Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser		
450	455	460
Ala Ser		
465		

<210> 71
 <211> 1566
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1566)

<400> 71	
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Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn	
1 5 10 15	
cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc	96
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr	
20 25 30	
acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac	144
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn	
35 40 45	

acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc	192
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala	
50 55 60	
tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc	240
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe	
65 70 75 80	
cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa	288
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu	
85 90 95	
aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att	336
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile	
100 105 110	
gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc	384
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser	
115 120 125	
cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac	432
Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn	
130 135 140	
tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag aag ggc gct	480
Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala	
145 150 155 160	
att tgt act cct aaa tac tcc agt cct ttt cca tgc act gga gga gag	528
Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu	
165 170 175	
gtt att ttc aaa gct ttg tca cca cca tac gat aca gag aac cct tac	576
Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr	
180 185 190	
agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag	624
Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln	
195 200 205	
ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac ctg aac gaa	672
Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu	
210 215 220	
gag cct caa cat ttt aca cac tat gca atc tat gat ttc att gtc aag	720
Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys	
225 230 235 240	
ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct gtt cat	768
Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His	
245 250 255	
ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg	816
Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly	
260 265 270	
aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt	864
Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys	
275 280 285	

gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac cgc aag tgt	912
Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg Lys Cys	
290 295 300	
aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca	960
Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala	
305 310 315 320	
tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca	1008
Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr	
325 330 335	
gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg	1056
Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu	
340 345 350	
cgg aga ccc ttc tca ccg tgt tcc tgc cat cca gta gga tca gct gtc	1104
Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser Ala Val	
355 360 365	
ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc	1152
Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys	
370 375 380	
cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg	1200
Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val	
385 390 395 400	
gga tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc tgt gga atg	1248
Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met	
405 410 415	
aaa tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa	1296
Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys	
420 425 430	
ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct	1344
Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser	
435 440 445	
acc aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca	1392
Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser	
450 455 460	
tgg acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa	1440
Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu	
465 470 475 480	
tac ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg	1488
Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val	
485 490 495	
aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa	1536
Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys	
500 505 510	
gtc atg gat att tta aaa gag agt gca agt	1566
Val Met Asp Ile Leu Lys Glu Ser Ala Ser	
515 520	

<210> 72
<211> 522
<212> PRT
<213> Homo sapiens

<400> 72

Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys Ala Cys Asn
1 5 10 15

Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
20 25 30

Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45

Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60

Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg Lys Cys
290 295 300

Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala
305 310 315 320

Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr
325 330 335

Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu
340 345 350

Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser Ala Val
355 360 365

Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys
370 375 380

Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val
385 390 395 400

Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met
405 410 415

Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys
420 425 430

Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser
435 440 445

Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser
450 455 460

Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu
 465 470 475 480

Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val
 485 490 495

Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys
 500 505 510

Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 515 520

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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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 gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95
 tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110
 cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
 His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125
 cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432

His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
130						135					140					
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	816
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
		275					280					285				
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	
	290					295					300					
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	960
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
305					310					315					320	
ggc	aaa	acg	ggg	gct	ccc	aac	gag	tgc	aga	acc	cgc	aag	tgt	aat	ggg	1008
Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn	Gly	
				325					330					335		
cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	ggg	1056
His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	
			340					345					350			
agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	gga	1104
Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	
		355					360					365				
cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	aga	1152
Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	

370	375	380	
ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta			1200
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val			
385	390	395	400
gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc			1248
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser			
	405	410	415
aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac			1296
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp			
	420	425	430
agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca			1344
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro			
	435	440	445
tgt gac tgt gca ggg agc tgt gac cct atc acc gga gac tgc atc agc			1392
Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser			
	450	455	460
agc cac aca gac ata gac tgg tat cat gaa gtt cct gac ttc cgt ccc			1440
Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro			
	465	470	480
gtg cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg			1488
Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly			
	485	490	495
ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca			1536
Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr			
	500	505	510
tta gga aag			1545
Leu Gly Lys			
	515		
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val			
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys			
	20	25	30
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp			
	35	40	45
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr			
	50	55	60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys
515

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<213> Homo sapiens

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Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
1				5					10					15			
gcc	gca	gga	ctg	agt	gga	gta	gct	gga	gtg	agt	tcc	cgc	tgt	gaa	aaa	96	
Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys		
			20					25					30				
gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	cga	aaa	ctc	tgg	144	
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp		
		35					40					45					
gca	gac	acc	acc	tgc	ggc	cag	aat	gct	acc	gaa	ctg	tac	tgc	ttc	tac	192	
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr		
	50					55					60						
agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240	
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys		
65					70					75					80		
aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288	
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp		
				85					90					95			
tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336	
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val		
			100					105					110				
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384	
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr		
		115					120					125					
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432	
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu		
	130					135					140						
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480	
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe		
145				150						155					160		
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528	
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys		
				165				170						175			
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576	
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr		
			180					185					190				
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624	
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu		
		195					200					205					
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672	
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu		
	210					215					220						

cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc gcc aag gca ttc tgt gga atg aaa tat tca tat gtg	816
Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val	
260 265 270	
cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag	864
Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu	
275 280 285	
gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att	912
Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile	
290 295 300	
ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga	960
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly	
305 310 315 320	
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga	1008
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly	
325 330 335	
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt	1056
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe	
340 345 350	
gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta	1104
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu	
355 360 365	
aaa gag agt gca agt	1119
Lys Glu Ser Ala Ser	
370	

<210> 76
 <211> 373
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<400> 76

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
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20 25 30	
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
260 265 270

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
275 280 285

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile

290

295

300

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
 305 310 315 320

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
 325 330 335

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
 340 345 350

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
 355 360 365

Lys Glu Ser Ala Ser
 370

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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60

agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80

aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110

cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
290 295 300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
305 310 315 320	
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag	1008
Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys	
325 330 335	
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag	1056
Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys	
340 345 350	

att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	1104
Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	
		355					360					365				

cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	1152
Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	
	370					375					380					

atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gca	gca	gga	cat	gag	gat	ata	1200
Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	
385					390					395					400	

aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1248
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	
			405					410						415		

aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	agt	gca	1296
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	
			420					425					430			

agt																1299
Ser																

<210> 78
 <211> 433
 <212> PRT
 <213> Homo sapiens

<400> 78

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5					10					15	

Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys
			20					25					30		

Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp
		35					40					45			

Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr
	50					55					60				

Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys
65					70					75					80

Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp
				85					90					95	

Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val
			100					105					110		

His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115							120						125			
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
130						135					140					
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
		275					280					285				
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	
	290					295					300					
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
305					310					315					320	
Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	
				325					330					335		
Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	
			340					345					350			
Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	
		355					360					365				

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 370 375 380

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
 385 390 395 400

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
 405 410 415

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
 420 425 430

Ser

<210> 79
 <211> 1287
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1287)

<400> 79
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95
 tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110

cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr 115 120 125	384
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu 130 135 140	432
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe 145 150 155 160	480
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys 165 170 175	528
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr 180 185 190	576
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu 195 200 205	624
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu 210 215 220	672
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp 225 230 235 240	720
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe 245 250 255	768
att gtc aag ggc cgc aag tgt aat ggg cat gct gat acc tgt cac ttc Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe 260 265 270	816
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys 275 280 285	864
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys 290 295 300	912
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe 305 310 315 320	960
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala 325 330 335	1008
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val 340 345 350	1056
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat	1104

Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr		
		355					360					365					
cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	1152	
Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro		
	370					375					380						
ggt	ttg	gaa	tac	ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	1200	
Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys		
	385				390					395					400		
cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	1248	
Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu		
			405					410						415			
gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	agt	gca	agt				1287	
Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser					
			420					425									

<210> 80
 <211> 429
 <212> PRT
 <213> Homo sapiens

<400> 80

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
1				5					10					15			
Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys		
			20					25					30				
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp		
		35					40					45					
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr		
	50					55					60						
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys		
65					70					75					80		
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp		
				85					90					95			
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val		
			100					105					110				
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr		
		115					120					125					
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu		
	130					135					140						

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
260 265 270

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
275 280 285

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
290 295 300

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe
305 310 315 320

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
325 330 335

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
340 345 350

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
355 360 365

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
370 375 380

Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys
385					390					395					400

Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu
				405					410					415	

Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser
			420					425				

<210> 81
 <211> 1275
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1275)

<400> 81	
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa	96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	
20 25 30	
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg	144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480

Asp 145	Arg	Ser	Gln	Asp	Phe 150	Gly	Lys	Thr	Trp	Lys 155	Pro	Tyr	Lys	Tyr	Phe 160	
gcg Ala	act Thr	aac Asn	tgc Cys	tcc Ser	gct Ala	aca Thr	ttt Phe	ggc Gly	ctg Leu	gaa Glu	gat Asp	gat Asp	gtt Val	gtc Val	aag Lys	528
aag Lys	ggc Gly	gct Ala	att Ile	tgt Cys	act Thr	cct Pro	aaa Lys	tac Tyr	tcc Ser	agt Ser	cct Pro	ttt Phe	cca Pro	tgc Cys	act Thr	576
gga Gly	gga Gly	gag Glu	gtt Val	att Ile	ttc Phe	aaa Lys	gct Ala	ttg Leu	tca Ser	cca Pro	cca Pro	tac Tyr	gat Asp	aca Thr	gag Glu	624
aac Asn	cct Pro	tac Tyr	agt Ser	gcc Ala	aaa Lys	gtt Val	cag Gln	gag Glu	cag Gln	ctg Leu	aag Lys	atc Ile	acc Thr	aac Asn	ctt Leu	672
cgc Arg	gtg Val	cag Gln	ctg Leu	ctg Leu	aaa Lys	cga Arg	cag Gln	tct Ser	tat Tyr	ccc Pro	tgt Cys	cag Gln	aga Arg	aat Asn	gac Asp	720
ctg Leu	aac Asn	gaa Glu	gag Glu	cct Pro	caa Gln	cat His	ttt Phe	aca Thr	cac His	tat Tyr	gca Ala	atc Ile	tat Tyr	gat Asp	ttc Phe	768
att Ile	gtc Val	aag Lys	ggc Gly	ccg Pro	tgt Cys	tcc Ser	tgc Cys	cat His	cca Pro	gta Val	gga Gly	tca Ser	gct Ala	gtc Val	ctt Leu	816
cct Pro	gcc Ala	aac Asn	tca Ser	gtg Val	acc Thr	ttc Phe	tgc Cys	gac Asp	ccc Pro	agc Ser	aat Asn	ggg Gly	gac Asp	tgc Cys	cct Pro	864
tgc Cys	aag Lys	cct Pro	ggg Gly	gtg Val	gca Ala	ggg Gly	cga Arg	cgt Arg	tgt Cys	gac Asp	agg Arg	tgc Cys	atg Met	gtg Val	gga Gly	912
tac Tyr	tgg Trp	ggc Gly	ttc Phe	gga Gly	gac Asp	tat Tyr	ggc Gly	gcc Ala	aag Lys	gca Ala	ttc Phe	tgt Cys	gga Gly	atg Met	aaa Lys	960
tat Tyr	tca Ser	tat Tyr	gtg Val	cta Leu	aaa Lys	ata Ile	aag Lys	att Ile	tta Leu	tca Ser	gct Ala	cat His	gat Asp	aaa Lys	ggt Gly	1008
act Thr	cat His	gtt Val	gag Glu	gtc Val	aat Asn	gtg Val	aag Lys	att Ile	aaa Lys	aag Lys	gtc Val	tta Leu	aaa Lys	tct Ser	acc Thr	1056
aaa Lys	ctg Leu	aag Lys	att Ile	ttc Phe	cga Arg	gga Gly	aag Lys	cga Arg	aca Thr	tta Leu	tat Tyr	cca Pro	gaa Glu	tca Ser	tggt Trp	1104
acg Thr	gac Asp	aga Arg	gga Gly	tgc Cys	act Thr	tgt Cys	cca Pro	atc Ile	ctc Leu	aat Asn	cct Pro	ggg Gly	ttg Leu	gaa Glu	tac Tyr	1152
ctt Leu	gca Ala	gca Ala	gga Gly	cat His	gag Glu	gat Asp	ata Ile	aga Arg	aca Thr	ggc Gly	aaa Lys	cta Leu	att Ile	gtg Val	aat Asn	1200

385	390	395	400	
atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc				1248
Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val				
	405	410	415	
atg gat att tta aaa gag agt gca agt				1275
Met Asp Ile Leu Lys Glu Ser Ala Ser				
	420	425		
<210>	82			
<211>	425			
<212>	PRT			
<213>	Homo sapiens			
<400>	82			
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val				
1	5	10	15	
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys				
	20	25	30	
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp				
	35	40	45	
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr				
	50	55	60	
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys				
65	70	75	80	
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp				
	85	90	95	
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val				
	100	105	110	
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr				
	115	120	125	
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu				
	130	135	140	
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe				
145	150	155	160	
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys				
	165	170	175	

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu
260 265 270

Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro
275 280 285

Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly
290 295 300

Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys
305 310 315 320

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
325 330 335

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
340 345 350

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
355 360 365

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
370 375 380

Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
385 390 395 400

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
405 410 415

Met Asp Ile Leu Lys Glu Ser Ala Ser
 420 425

<210> 83
 <211> 1467
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1467)

<400> 83
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95
 tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110
 cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
 His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125
 cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
 His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
 130 135 140
 gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480
 Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
 145 150 155 160
 gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag 528
 Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
 165 170 175
 aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act 576
 Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr

180										185					190					
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624				
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu					
		195					200					205								
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672				
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu					
	210					215					220									
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720				
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp					
225					230					235					240					
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768				
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe					
				245				250						255						
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	816				
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile					
		260					265						270							
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864				
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met					
		275					280					285								
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912				
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys					
	290					295					300									
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	960				
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp					
305					310					315					320					
cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	1008				
Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val					
				325					330					335						
tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	1056				
Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln					
			340					345					350							
cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	1104				
His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr					
		355					360					365								
cgt	gac	ctg	cgg	aga	ccc	ttc	tca	gcc	aag	gca	ttc	tgt	gga	atg	aaa	1152				
Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys					
	370					375					380									
tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggg	1200				
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly					
385					390					395					400					
act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	1248				
Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr					
				405					410					415						
aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	1296				
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp					
			420					425					430							

acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac	1344
Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr	
435 440 445	

ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat	1392
Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn	
450 455 460	

atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc	1440
Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val	
465 470 475 480	

atg gat att tta aaa gag agt gca agt	1467
Met Asp Ile Leu Lys Glu Ser Ala Ser	
485	

<210> 84
 <211> 489
 <212> PRT
 <213> Homo sapiens

<400> 84

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
325 330 335

Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
340 345 350

His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
355 360 365

Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys
370 375 380

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly

[illegible]

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc cgc aag tgt aat ggg cat gct gat acc tgt cac ttc	816
Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe	
260 265 270	
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt	864
Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys	
275 280 285	
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag	912
Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys	
290 295 300	
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc	960
Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys	
305 310 315 320	
cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc	1008
His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys	
325 330 335	

gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga	1056
Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg	
340 345 350	
cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc	1104
Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly	
355 360 365	
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag	1152
Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys	
370 375 380	
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag	1200
Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys	
385 390 395 400	
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag	1248
Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys	
405 410 415	
cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca	1296
Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro	
420 425 430	
atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata	1344
Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile	
435 440 445	
aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg	1392
Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp	
450 455 460	
aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt gca	1440
Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala	
465 470 475 480	
agt	1443
Ser	

<210> 86
 <211> 481
 <212> PRT
 <213> Homo sapiens

<400> 86

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr

50

55

60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
260 265 270

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
275 280 285

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
290 295 300

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys
305 310 315 320

His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys
325 330 335

Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg
340 345 350

Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly
355 360 365

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
370 375 380

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
385 390 395 400

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
405 410 415

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
420 425 430

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
435 440 445

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
450 455 460

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
465 470 475 480

Ser

<210> 87
<211> 1455
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1455)

<400> 87

atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa	96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	
20 25 30	
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg	144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc	768

[illegible]

485

<210> 88
<211> 485
<212> PRT
<213> Homo sapiens

<400> 88

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser
325 330 335

Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly
340 345 350

Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe
355 360 365

Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
370 375 380

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
385 390 395 400

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
405 410 415

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
420 425 430

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
435 440 445

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
 450 455 460

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
 465 470 475 480

Lys Glu Ser Ala Ser
 485

<210> 89
 <211> 1623
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1623)

<400> 89
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60

agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80

aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110

cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
 His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125

cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
 His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
 130 135 140

gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480
 Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe

145	150	155	160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag				528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	165	170	175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act				576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	180	185	190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag				624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	195	200	205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt				672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	210	215	220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac				720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	225	230	235	240
ctg aac gaa gag cct caa cat ttt aca cac tat gca atc tat gat ttc				768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	245	250	255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gct gat caa tgc ata				816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	260	265	270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg				864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	275	280	285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc				912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	290	295	300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac				960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	305	310	315	320
cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg				1008
Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val	325	330	335	
tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag				1056
Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln	340	345	350	
cac aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat				1104
His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr	355	360	365	
cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat cca gta gga				1152
Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly	370	375	380	
tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat				1200
Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn	385	390	395	400

ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg	1248
Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg	
405 410 415	
tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc	1296
Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe	
420 425 430	
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct	1344
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala	
435 440 445	
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc	1392
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val	
450 455 460	
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat	1440
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr	
465 470 475 480	
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct	1488
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro	
485 490 495	
ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc aaa	1536
Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys	
500 505 510	
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt	1584
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu	
515 520 525	
gga aga aaa gtc atg gat att tta aaa gag agt gca agt	1623
Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	
530 535 540	

<210> 90
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 <212> PRT
 <213> Homo sapiens

<400> 90

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp

305		310		315		320									
Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val
			325						330					335	
Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln
			340					345					350		
His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr
		355					360					365			
Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Pro	Cys	Ser	Cys	His	Pro	Val	Gly
	370					375					380				
Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn
385					390					395					400
Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg
				405					410						415
Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe
		420						425					430		
Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala
		435					440					445			
His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val
	450					455					460				
Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr
465					470					475					480
Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro
				485					490					495	
Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys
			500					505					510		
Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu
		515					520					525			
Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser			
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 <211> 1545

<212> DNA
<213> Homo sapiens

<220>
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<222> (1)..(1545)

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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag 528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act 576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag 624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
290 295 300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
305 310 315 320	
ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg	1008
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly	
325 330 335	
cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg	1056
His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly	
340 345 350	
agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa gga	1104
Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly	
355 360 365	
cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga	1152
Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg	
370 375 380	
ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta	1200
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val	
385 390 395 400	
gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc	1248
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser	
405 410 415	
aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac	1296
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp	
420 425 430	
agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca	1344
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro	
435 440 445	
tgt gac tgt gcg ggg agc tgt gac cct atc acc gga gac tgc atc agc	1392

Cys	Asp	Cys	Ala	Gly	Ser	Cys	Asp	Pro	Ile	Thr	Gly	Asp	Cys	Ile	Ser		
450						455					460						
agc	cac	aca	gac	ata	gac	tgg	tgt	cat	gaa	gtt	cct	gac	ttc	cgt	ccc	1440	
Ser	His	Thr	Asp	Ile	Asp	Trp	Cys	His	Glu	Val	Pro	Asp	Phe	Arg	Pro		
465					470					475					480		
gtg	cac	aat	aag	agc	gaa	cca	gcc	tgg	gag	tgg	gag	gat	gcg	cag	ggg	1488	
Val	His	Asn	Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly		
				485					490					495			
ttt	tct	gca	ctt	cta	cac	tca	ggt	aaa	tgc	gaa	tgt	aag	gaa	cag	aca	1536	
Phe	Ser	Ala	Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr		
			500					505					510				
tta	gga	aag														1545	
Leu	Gly	Lys															
		515															

<210> 92
 <211> 515
 <212> PRT
 <213> Homo sapiens

<400> 92

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
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Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys		
			20					25					30				
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp		
		35					40					45					
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr		
	50					55					60						
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys		
65					70				75						80		
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp		
				85					90					95			
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val		
			100					105					110				
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr		
		115					120					125					
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu		
	130					135					140						

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
 385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
 405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
 420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
 435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
 450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
 465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
 485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
 500 505 510

Leu Gly Lys
 515

<210> 93
 <211> 1119
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1119)

<400> 93
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192

Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
50						55					60					
agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70					75					80	
aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		
tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	816
Ile	Val	Lys	Gly	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	
			260					265					270			
cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggc	act	cat	gtt	gag	864
Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	
		275					280					285				
gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	912
Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	

290	295	300	
ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga			960
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly			
305	310	315	320
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gta gca gga			1008
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly			
	325	330	335
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt			1056
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe			
	340	345	350
gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta			1104
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu			
	355	360	365
aaa aga gag tgc aag			1119
Lys Arg Glu Cys Lys			
370			
<210> 94			
<211> 373			
<212> PRT			
<213> Homo sapiens			
<400> 94			
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val			
1	5	10	15
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys			
	20	25	30
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp			
	35	40	45
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr			
	50	55	60
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys			
65	70	75	80
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp			
	85	90	95
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val			
	100	105	110
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr			
	115	120	125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
260 265 270

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
275 280 285

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
290 295 300

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
305 310 315 320

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly
325 330 335

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
340 345 350

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
355 360 365

Lys Arg Glu Cys Lys
370

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<211> 1299
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15
gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag 528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act 576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr

180										185					190					
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624				
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu					
		195					200					205								
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672				
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu					
	210					215					220									
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720				
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp					
225					230					235					240					
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	atc	tat	gat	ttc	768				
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe					
				245				250						255						
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gcc	gat	caa	tgc	ata	816				
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile					
			260				265						270							
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864				
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met					
		275					280					285								
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912				
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys					
	290					295					300									
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gat	960				
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp					
305					310					315					320					
gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	1008				
Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys					
				325					330					335						
att	tta	tca	gct	cat	gat	aaa	ggt	act	cat	gtt	gag	gtc	aat	gtg	aag	1056				
Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys					
			340					345					350							
att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	1104				
Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys					
		355					360					365								
cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	1152				
Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro					
		370				375					380									
atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	1200				
Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile					
385					390					395					400					
aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1248				
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp					
				405					410					415						
aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	1296				
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys					
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aag
Lys

1299

<210> 96
<211> 433
<212> PRT
<213> Homo sapiens

<400> 96

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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
325 330 335

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
340 345 350

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
355 360 365

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
370 375 380

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile
385 390 395 400

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
405 410 415

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys
420 425 430

Lys

<210> 97
 <211> 1287
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1287)

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 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaactc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95
 tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
 Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110
 cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
 His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125
 cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
 His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
 130 135 140
 gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480
 Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
 145 150 155 160
 gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag 528
 Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
 165 170 175
 aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act 576
 Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
 180 185 190

gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc cgc aag tgt aat ggg cat gct gat acc tgt cac ttc	816
Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe	
260 265 270	
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt	864
Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys	
275 280 285	
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag	912
Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys	
290 295 300	
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc	960
Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe	
305 310 315 320	
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct	1008
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala	
325 330 335	
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc	1056
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val	
340 345 350	
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat	1104
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr	
355 360 365	
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct	1152
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro	
370 375 380	
ggt ttg gaa tac ctt gta gca gga cat gag gat ata aga aca ggc aaa	1200
Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys	
385 390 395 400	
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt	1248
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu	
405 410 415	
gga aga aaa gtc atg gat att tta aaa aga gag tgc aag	1287
Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys	
420 425	

<210> 98
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<212> PRT
<213> Homo sapiens

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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu

210

215

220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
 225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
 245 250 255

Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
 260 265 270

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
 275 280 285

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
 290 295 300

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe
 305 310 315 320

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
 325 330 335

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 340 345 350

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 355 360 365

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 370 375 380

Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 385 390 395 400

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 405 410 415

Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 420 425

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<211> 1275

<212> DNA

<213> Homo sapiens

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 <222> (1)..(1275)

<400> 99

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1				5					10					15		

gcc	gca	gga	ctg	agt	gga	gta	gct	gga	gtg	agt	tcc	cgc	tgt	gaa	aaa	96
Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	
			20					25					30			

gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	cga	aaa	ctc	tgg	144
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	
		35					40					45				

gca	gac	acc	acc	tgc	ggt	cag	aat	gct	acc	gaa	ctg	tac	tgc	ttc	tac	192
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
	50					55					60					

agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70					75					80	

aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		

tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			

cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				

cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					

gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	

gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		

aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			

gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				

aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					

cgc gtc cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt	816
Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu	
260 265 270	
cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct	864
Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro	
275 280 285	
tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga	912
Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly	
290 295 300	
tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc tgt gga atg aaa	960
Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys	
305 310 315 320	
tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt	1008
Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly	
325 330 335	
act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc	1056
Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr	
340 345 350	
aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca tgg	1104
Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp	
355 360 365	
acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac	1152
Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr	
370 375 380	
ctt gta gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat	1200
Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn	
385 390 395 400	
atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc	1248
Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val	
405 410 415	
atg gat att tta aaa aga gag tgc aag	1275
Met Asp Ile Leu Lys Arg Glu Cys Lys	
420 425	

<210> 100
 <211> 425
 <212> PRT
 <213> Homo sapiens

<400> 100

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		20						25					30						
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp				
		35					40					45							
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr				
	50					55					60								
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys				
65					70					75								80	
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp				
				85					90					95					
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val				
			100					105						110					
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr				
		115					120					125							
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu				
	130					135					140								
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe				
145					150					155					160				
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys				
				165					170					175					
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr				
			180					185					190						
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu				
		195					200					205							
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu				
	210					215					220								
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp				
225					230					235					240				
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe				
				245					250					255					

Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu
260 265 270

Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro
275 280 285

Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly
290 295 300

Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys
305 310 315 320

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
325 330 335

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
340 345 350

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
355 360 365

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
370 375 380

Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
385 390 395 400

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
405 410 415

Met Asp Ile Leu Lys Arg Glu Cys Lys
420 425

<210> 101
<211> 1467
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1467)

<400> 101
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa	96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	
20 25 30	
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg	144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata	816

Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
		275					280					285				
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	
	290					295					300					
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gat	960
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
305					310					315					320	
cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	1008
Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	
			325						330					335		
tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	1056
Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	
			340					345					350			
cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	1104
His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	
		355					360					365				
cgt	gac	ctg	cgg	aga	ccc	ttc	tca	gcc	aag	gca	ttc	tgt	gga	atg	aaa	1152
Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	
	370					375					380					
tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggg	1200
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	
385					390					395					400	
act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	1248
Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	
				405				410						415		
aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	1296
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	
			420					425					430			
acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggg	ttg	gaa	tac	1344
Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	
		435					440					445				
ctt	gta	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	1392
Leu	Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	
	450					455					460					
atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	1440
Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	
465					470				475						480	
atg	gat	att	tta	aaa	aga	gag	tgc	aag								1467
Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys								
				485												

<211> 489
<212> PRT
<213> Homo sapiens

<400> 102

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
325 330 335

Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
340 345 350

His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
355 360 365

Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys
370 375 380

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
385 390 395 400

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
405 410 415

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
420 425 430

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
435 440 445

Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
450 455 460

Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val
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Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys
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<210> 103
 <211> 1443
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1443)

<400> 103	
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa	96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys	
20 25 30	
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg	144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp	
35 40 45	
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac	192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr	
50 55 60	
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc	240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys	
65 70 75 80	
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	

	165		170		175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act						576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr						
	180		185		190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag						624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu						
	195		200		205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt						672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu						
	210		215		220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac						720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp						
	225		230		235	240
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc						768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe						
	245		250		255	
att gtc aag ggc cgc aag tgt aat ggg cat gct gat acc tgt cac ttc						816
Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe						
	260		265		270	
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt						864
Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys						
	275		280		285	
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag						912
Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys						
	290		295		300	
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc						960
Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys						
	305		310		315	320
cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc						1008
His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys						
	325		330		335	
gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga						1056
Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg						
	340		345		350	
cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc						1104
Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly						
	355		360		365	
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag						1152
Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys						
	370		375		380	
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag						1200
Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys						
	385		390		395	400
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag						1248
Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys						
	405		410		415	

cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	1296
Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	
		420						425					430			

atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	1344
Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile	
		435					440					445				

aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1392
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	
		450				455					460					

aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	1440
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	
465					470					475					480	

aag																1443
Lys																

<210> 104
 <211> 481
 <212> PRT
 <213> Homo sapiens

<400> 104

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
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Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys
			20					25					30		

Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp
		35					40					45			

Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr
	50					55					60				

Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys
65					70					75					80

Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp
				85					90					95	

Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val
			100					105					110		

His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr
		115					120					125			

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
260 265 270

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
275 280 285

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
290 295 300

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys
305 310 315 320

His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys
325 330 335

Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg
340 345 350

Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly
355 360 365

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys

370

375

380

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
 385 390 395 400

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
 405 410 415

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 420 425 430

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile
 435 440 445

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
 450 455 460

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys
 465 470 475 480

Lys

<210> 105
 <211> 1455
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1455)

<400> 105
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 gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80

aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac	288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp	
85 90 95	
tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
290 295 300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gat	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
305 310 315 320	

ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca	1008
Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser	
325 330 335	
gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg	1056
Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly	
340 345 350	
gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc	1104
Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe	
355 360 365	
gga gac tat ggc gcc aag gca ttc tgt gga atg aaa tat tca tat gtg	1152
Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val	
370 375 380	
cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag	1200
Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu	
385 390 395 400	
gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att	1248
Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile	
405 410 415	
ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga	1296
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly	
420 425 430	
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gta gca gga	1344
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly	
435 440 445	
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt	1392
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe	
450 455 460	
gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta	1440
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu	
465 470 475 480	
aaa aga gag tgc aag	1455
Lys Arg Glu Cys Lys	
485	

<210> 106
 <211> 485
 <212> PRT
 <213> Homo sapiens

<400> 106

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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp

35

40

45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser
325 330 335

Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly
340 345 350

Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe
355 360 365

Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
370 375 380

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
385 390 395 400

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
405 410 415

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
420 425 430

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly
435 440 445

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
450 455 460

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
465 470 475 480

Lys Arg Glu Cys Lys
485

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<211> 1623
<212> DNA
<213> Homo sapiens

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<221> CDS

<222> (1)..(1623)

<400> 107

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Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val	
1				5					10					15		

gcc	gca	gga	ctg	agt	gga	gta	gct	gga	gtg	agt	tcc	cgc	tgt	gaa	aaa	96
Ala	Ala	Gly	Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	
			20					25					30			

gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	cga	aaa	ctc	tgg	144
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	
		35					40					45				

gca	gac	acc	acc	tgc	ggc	cag	aat	gct	acc	gaa	ctg	tac	tgc	ttc	tac	192
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
	50					55					60					

agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70				75						80	

aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		

tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			

cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				

cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					

gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	

gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		

aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			

gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				

aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					

cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
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Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gcc	gat	caa	tgc	ata	816
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
			275				280					285				
gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	912
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	
	290					295					300					
cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gat	960
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	
305					310					315					320	
cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	1008
Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	
				325					330					335		
tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	1056
Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	
			340					345					350			
cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	1104
His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	
			355				360					365				
cgt	gac	ctg	cgg	aga	ccc	ttc	tca	ccg	tgt	tcc	tgc	cat	cca	gta	gga	1152
Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	
	370					375					380					
tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	1200
Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	
385					390					395					400	
ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	1248
Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	
			405					410						415		
tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	1296
Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	
			420					425					430			
tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	1344
Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	
			435				440					445				
cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	1392
His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	
	450					455					460					
tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	1440
Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	

465	470	475	480	
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct				1488
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro				
	485	490	495	
ggt ttg gaa tac ctt gta gca gga cat gag gat ata aga aca ggc aaa				1536
Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys				
	500	505	510	
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt				1584
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu				
	515	520	525	
gga aga aaa gtc atg gat att tta aaa aga gag tgc aag				1623
Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys				
	530	535	540	

<210> 108
 <211> 541
 <212> PRT
 <213> Homo sapiens

<400> 108

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Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val
325 330 335

Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln
340 345 350

His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr
355 360 365

Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly
370 375 380

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
385 390 395 400

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
405 410 415

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe
420 425 430

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
435 440 445

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
450 455 460

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
465 470 475 480

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
485 490 495

Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys
500 505 510

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
515 520 525

Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
530 535 540

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<211> 1884
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<220>
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<222> (1)..(1884)

<400> 109
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp

35					40					45						
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Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
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agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	tgt	gac	aag	tgc	240
Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
65					70					75					80	
aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	gcc	atg	gca	gac	288
Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		
tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	gcg	gag	gat	gtg	336
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			
cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	ttc	tac	ttc	act	384
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				
cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	gcc	atg	gtg	ctg	432
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					
gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	tat	aag	tac	ttt	480
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	
gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	gat	gtt	gtc	aag	528
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys	
				165					170					175		
aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	ttt	cca	tgc	act	576
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr	
			180					185					190			
gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	tac	gat	aca	gag	624
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu	
		195					200					205				
aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	atc	acc	aac	ctt	672
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu	
	210					215					220					
cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	cag	aga	aat	gac	720
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp	
225					230					235					240	
ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	atc	tat	gat	ttc	768
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	
				245					250					255		
att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gct	gat	caa	tgc	ata	816
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	
			260					265					270			
cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	aca	ttc	cac	atg	864
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	
		275					280					285				

gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
290 295 300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
305 310 315 320	
ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg	1008
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly	
325 330 335	
cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg	1056
His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly	
340 345 350	
agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa gga	1104
Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly	
355 360 365	
cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga	1152
Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg	
370 375 380	
ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta	1200
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val	
385 390 395 400	
gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc	1248
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser	
405 410 415	
aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac	1296
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp	
420 425 430	
agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca	1344
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro	
435 440 445	
tgt gac tgt gca ggg agc tgt gac cct atc acc gga gac tgc atc agc	1392
Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser	
450 455 460	
agc cac aca gac ata gac tgg tat cat gaa gtt cct gac ttc cgt ccc	1440
Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro	
465 470 475 480	
gtg cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg	1488
Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly	
485 490 495	
ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca	1536
Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr	
500 505 510	
tta gga aag gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta	1584
Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu	
515 520 525	

aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc	1632
Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val	
530 535 540	

aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc	1680
Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe	
545 550 555 560	

cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc	1728
Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys	
565 570 575	

act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat	1776
Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His	
580 585 590	

gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc	1824
Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val	
595 600 605	

cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa	1872
Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys	
610 615 620	

gag agt gca agt	1884
Glu Ser Ala Ser	
625	

<210> 110
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 110

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20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val

100					105					110					
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr
		115				120						125			
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu
		130				135				140					
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe
145				150						155				160	
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys
				165				170						175	
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr
		180						185				190			
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu
		195				200						205			
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu
		210				215				220					
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp
225				230						235				240	
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe
				245				250						255	
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile
		260						265				270			
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met
		275				280						285			
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys
		290				295				300					
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp
305				310						315				320	
Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn	Gly
				325				330						335	
His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly
		340						345				350			

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
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Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Glu Ser Ala Ser
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<220>
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg 336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act 384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg 432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt 480

Asp 145	Arg	Ser	Gln	Asp	Phe 150	Gly	Lys	Thr	Trp	Lys 155	Pro	Tyr	Lys	Tyr	Phe 160	
gcg Ala	act Thr	aac Asn	tgc Cys	tcc Ser	gct Ala	aca Thr	ttt Phe	ggc Gly	ctg Leu	gaa Glu	gat Asp	gat Asp	gtt Val	gtc Val	aag Lys	528
aag Lys	ggc Gly	gct Ala	att Ile	tgt Cys	act Thr	cct Pro	aaa Lys	tac Tyr	tcc Ser	agt Ser	cct Pro	ttt Phe	cca Pro	tgc Cys	act Thr	576
gga Gly	gga Gly	gag Glu	gtt Val	att Ile	ttc Phe	aaa Lys	gct Ala	ttg Leu	tca Ser	cca Pro	cca Pro	tac Tyr	gat Asp	aca Thr	gag Glu	624
aac Asn	cct Pro	tac Tyr	agt Ser	gcc Ala	aaa Lys	gtt Val	cag Gln	gag Glu	cag Gln	ctg Leu	aag Lys	atc Ile	acc Thr	aac Asn	ctt Leu	672
cgc Arg	gtg Val	cag Gln	ctg Leu	ctg Leu	aaa Lys	cga Arg	cag Gln	tct Ser	tat Tyr	ccc Pro	tgt Cys	cag Gln	aga Arg	aat Asn	gac Asp	720
ctg Leu	aac Asn	gaa Glu	gag Glu	cct Pro	caa Gln	cat His	ttt Phe	aca Thr	cac His	tat Tyr	gcg Ala	atc Ile	tat Tyr	gat Asp	ttc Phe	768
att Ile	gtc Val	aag Lys	ggc Gly	agc Ser	tgc Cys	ttc Phe	tgc Cys	aat Asn	ggc Gly	cac His	gcc Ala	gat Asp	caa Gln	tgc Cys	ata Ile	816
cct Pro	gtt Val	cat His	ggc Gly	ttc Phe	aga Arg	cct Pro	gtc Val	aag Lys	gcc Ala	cca Pro	gga Gly	aca Thr	ttc Phe	cac His	atg Met	864
gtc Val	cat His	ggg Gly	aag Lys	tgt Cys	atg Met	tgt Cys	aag Lys	cac His	aac Asn	aca Thr	gca Ala	ggc Gly	agc Ser	cac His	tgc Cys	912
cag Gln	cac His	tgt Cys	gcc Ala	ccg Pro	tta Leu	tac Tyr	aat Asn	gac Asp	cgg Arg	cca Pro	tgg Trp	gag Glu	gca Ala	gct Ala	gac Asp	960
ggc Gly	aaa Lys	acg Thr	ggg Gly	gct Ala	ccc Pro	aac Asn	gag Glu	tgc Cys	aga Arg	acc Thr	cgc Arg	aag Lys	tgt Cys	aat Asn	ggg Gly	1008
cat His	gct Ala	gat Asp	acc Thr	tgt Cys	cac His	ttc Phe	gac Asp	gtt Val	aat Asn	gtg Val	tgg Trp	gag Glu	gca Ala	tca Ser	ggg Gly	1056
agt Ser	cgt Arg	agt Ser	ggt Gly	ggt Gly	gtc Val	tgt Cys	gat Asp	gac Asp	tgt Cys	cag Gln	cac His	aac Asn	aca Thr	gaa Glu	gga Gly	1104
cag Gln	tat Tyr	tgc Cys	cag Gln	agg Arg	tgc Cys	aag Lys	cca Pro	ggc Gly	ttc Phe	tat Tyr	cgt Arg	gac Asp	ctg Leu	cgg Arg	aga Arg	1152
ccc Pro	ttc Phe	tca Ser	gct Ala	cca Pro	gat Asp	gct Ala	tgc Cys	aaa Lys	ccg Pro	tgt Cys	tcc Ser	tgc Cys	cat His	cca Pro	gta Val	1200

385		390		395		400	
gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc							1248
Gly Ser Ala Val	Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser						
	405		410		415		
aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac							1296
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp							
	420		425		430		
agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca							1344
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro							
	435		440		445		
tgt gac tgt gcg ggg agc tgt gac cct atc acc gga gac tgc atc agc							1392
Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser							
	450		455		460		
agc cac aca gac ata gac tgg tgt cat gaa gtt cct gac ttc cgt ccc							1440
Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro							
	465		470		475		480
gtg cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg							1488
Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly							
	485		490		495		
ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca							1536
Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr							
	500		505		510		
tta gga aag gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta							1584
Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu							
	515		520		525		
aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc							1632
Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val							
	530		535		540		
aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc							1680
Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe							
	545		550		555		560
cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc							1728
Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys							
	565		570		575		
act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gta gca gga cat							1776
Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His							
	580		585		590		
gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc							1824
Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val							
	595		600		605		
cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa							1872
Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys							
	610		615		620		
aga gag tgc aag							1884
Arg Glu Cys Lys							
625							

<210> 112
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<212> PRT
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<400> 112

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser

450

455

460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

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<222> (1)..(822)

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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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gcc gca gga agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro 20 25 30	96
gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val 35 40 45	144
cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln 50 55 60	192
cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly 65 70 75 80	240
aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His 85 90 95	288
gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser 100 105 110	336
cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln 115 120 125	384
tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro 130 135 140	432
ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly 145 150 155 160	480
tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn 165 170 175	528
ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg 180 185 190	576
tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca tgt Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys 195 200 205	624
gac tgt gca ggg agc tgt gac cct atc acc gga gac tgc atc agc agc Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser 210 215 220	672
cac aca gac ata gac tgg tat cat gaa gtt cct gac ttc cgt ccc gtg His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val 225 230 235 240	720
cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg ttt His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe 245 250 255	768

tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca tta	816
Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu	
260 265 270	

gga aag	822
Gly Lys	

<210> 114
 <211> 274
 <212> PRT
 <213> Homo sapiens

<400> 114

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
20 25 30

Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
35 40 45

His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
50 55 60

His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly
65 70 75 80

Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His
85 90 95

Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser
100 105 110

Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln
115 120 125

Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro
130 135 140

Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly
145 150 155 160

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
165 170 175

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg

180	185	190
Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys		
195	200	205
Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser		
210	215	220
His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val		
225	230	235
His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe		
245	250	255
Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu		
260	265	270

Gly Lys

<210> 115
<211> 1509
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1509)

<400> 115	
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg	96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly	
20 25 30	
cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg	144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu	
35 40 45	
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa	192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys	
50 55 60	
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct	240
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser	
65 70 75 80	
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct	288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser	
85 90 95	

gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu 100 105 110	336
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala 115 120 125	384
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro 130 135 140	432
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp 145 150 155 160	480
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro 165 170 175	528
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro 180 185 190	576
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys 195 200 205	624
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys 210 215 220	672
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala 225 230 235 240	720
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala 245 250 255	768
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly 260 265 270	816
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala 275 280 285	864
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300	912
gag gca gct gac ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg 305 310 315 320	960
aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp 325 330 335	1008

gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac	1056
Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His	
340 345 350	
aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt	1104
Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg	
355 360 365	
gac ctg cgg aga ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc	1152
Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser	
370 375 380	
tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc	1200
Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe	
385 390 395 400	
tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg	1248
Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly	
405 410 415	
cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat	1296
Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr	
420 425 430	
ggc tgt cga cca tgt gac tgt gca ggg agc tgt gac cct atc acc gga	1344
Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly	
435 440 445	
gac tgc atc agc agc cac aca gac ata gac tgg tat cat gaa gtt cct	1392
Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro	
450 455 460	
gac ttc cgt ccc gtg cac aat aag agc gaa cca gcc tgg gag tgg gag	1440
Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu	
465 470 475 480	
gat gcg cag ggg ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt	1488
Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys	
485 490 495	
aag gaa cag aca tta gga aag	1509
Lys Glu Gln Thr Leu Gly Lys	
500	

<210> 116
 <211> 503
 <212> PRT
 <213> Homo sapiens

<400> 116

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu

35

40

45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
 165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
 180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
 195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
 210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
 225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
 245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
 260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
 275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg
305 310 315 320

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
325 330 335

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
340 345 350

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
355 360 365

Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser
370 375 380

Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe
385 390 395 400

Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly
405 410 415

Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr
420 425 430

Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly
435 440 445

Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro
450 455 460

Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu
465 470 475 480

Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys
485 490 495

Lys Glu Gln Thr Leu Gly Lys
500

<210> 117
<211> 1848
<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(1848)

<400> 117

atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	

gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg	96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly	
20 25 30	

cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg	144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu	
35 40 45	

tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa	192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys	
50 55 60	

tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct	240
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser	
65 70 75 80	

gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct	288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser	
85 90 95	

gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa	336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu	
100 105 110	

ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct	384
Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala	
115 120 125	

gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct	432
Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro	
130 135 140	

tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat	480
Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp	
145 150 155 160	

gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct	528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro	
165 170 175	

ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca	576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro	
180 185 190	

tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag	624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys	
195 200 205	

atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt	672
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Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys 210 215 220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala 225 230 235 240	720
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala 245 250 255	768
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly 260 265 270	816
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala 275 280 285	864
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300	912
gag gca gct gac ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg 305 310 315 320	960
aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp 325 330 335	1008
gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His 340 345 350	1056
aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg 355 360 365	1104
gac ctg cgg aga ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser 370 375 380	1152
tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe 385 390 395 400	1200
tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly 405 410 415	1248
cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr 420 425 430	1296
ggc tgt cga cca tgt gac tgt gca ggg agc tgt gac cct atc acc gga Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly 435 440 445	1344
gac tgc atc agc agc cac aca gac ata gac tgg tat cat gaa gtt cct Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro	1392

450	455	460	
gac ttc cgt ccc gtg cac aat aag agc gaa cca gcc tgg gag tgg gag			1440
Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu			
465	470	475	480
gat gcg cag ggg ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt			1488
Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys			
	485	490	495
aag gaa cag aca tta gga aag gcc aag gca ttc tgt gga atg aaa tat			1536
Lys Glu Gln Thr Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr			
	500	505	510
tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act			1584
Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr			
	515	520	525
cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa			1632
His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys			
	530	535	540
ctg aag att ttc cga gga aag cga aca tta tat cca gaa tcatgg acg			1680
Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr			
545	550	555	560
gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt			1728
Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu			
	565	570	575
gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg			1776
Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met			
	580	585	590
aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg			1824
Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met			
	595	600	605
gat att tta aaa gag agt gca agt			1848
Asp Ile Leu Lys Glu Ser Ala Ser			
610	615		

<210> 118
 <211> 616
 <212> PRT
 <213> Homo sapiens

<400> 118

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg
305 310 315 320

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
325 330 335

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
340 345 350

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
355 360 365

Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser
370 375 380

Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe
385 390 395 400

Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly
405 410 415

Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr
420 425 430

Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly
435 440 445

Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro
450 455 460

Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu
465 470 475 480

Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys
485 490 495

Lys Glu Gln Thr Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr
500 505 510

Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr
515 520 525

His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys

530

535

540

Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr
 545 550 555 560

Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu
 565 570 575

Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met
 580 585 590

Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met
 595 600 605

Asp Ile Leu Lys Glu Ser Ala Ser
 610 615

<210> 119
 <211> 1161
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1161)

<400> 119
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct 96
 Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
 20 25 30
 gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc 144
 Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
 35 40 45
 cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag 192
 His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
 50 55 60
 cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc 240
 His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly
 65 70 75 80
 aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat 288
 Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His
 85 90 95
 gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt 336
 Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser
 100 105 110

cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag	384
Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln	
115 120 125	
tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc	432
Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro	
130 135 140	
ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga	480
Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly	
145 150 155 160	
tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat	528
Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn	
165 170 175	
ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg	576
Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg	
180 185 190	
tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca tgt	624
Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys	
195 200 205	
gac tgt gca ggg agc tgt gac cct atc acc gga gac tgc atc agc agc	672
Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser	
210 215 220	
cac aca gac ata gac tgg tat cat gaa gtt cct gac ttc cgt ccc gtg	720
His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val	
225 230 235 240	
cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg ttt	768
His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe	
245 250 255	
tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca tta	816
Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu	
260 265 270	
gga aag gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa	864
Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys	
275 280 285	
ata aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat	912
Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn	
290 295 300	
gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga	960
Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg	
305 310 315 320	
gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act	1008
Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr	
325 330 335	
tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag	1056
Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu	
340 345 350	

gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	1104
Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	
		355						360					365			

cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	1152
His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	
	370					375					380					

agt	gca	agt														1161
Ser	Ala	Ser														
385																

<210> 120
 <211> 387
 <212> PRT
 <213> Homo sapiens

 <400> 120

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5					10					15	

Ala	Ala	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	Pro
			20					25					30		

Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	Val
		35					40					45			

His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln
	50					55					60				

His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Gly
65					70					75					80

Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn	Gly	His
				85					90					95	

Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser
			100						105					110	

Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln
		115					120					125			

Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro
	130					135					140				

Phe	Ser	Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	Cys	His	Pro	Val	Gly
145					150					155					160

Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

165

170

175

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
 180 185 190

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys
 195 200 205

Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser
 210 215 220

His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val
 225 230 235 240

His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe
 245 250 255

Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu
 260 265 270

Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys
 275 280 285

Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn
 290 295 300

Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg
 305 310 315 320

Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr
 325 330 335

Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu
 340 345 350

Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln
 355 360 365

His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu
 370 375 380

Ser Ala Ser
 385

<210> 121

<211> 564

<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(564)

<400> 121
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

gcc gca gga cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac 96
Ala Ala Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp
20 25 30

gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat 144
Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp
35 40 45

gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag cca 192
Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro
50 55 60

ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc tgt 240
Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys
65 70 75 80

gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct cat 288
Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His
85 90 95

gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc tta 336
Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu
100 105 110

aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat cca 384
Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro
115 120 125

gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct ggt 432
Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly
130 135 140

ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc aaa cta 480
Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu
145 150 155 160

att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga 528
Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly
165 170 175

aga aaa gtc atg gat att tta aaa gag agt gca agt 564
Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
180 185

<210> 122
<211> 188
<212> PRT

<213> Homo sapiens

<400> 122

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp
20 25 30

Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp
35 40 45

Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro
50 55 60

Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys
65 70 75 80

Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His
85 90 95

Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu
100 105 110

Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro
115 120 125

Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly
130 135 140

Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu
145 150 155 160

Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly
165 170 175

Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
180 185

<210> 123

<211> 1083

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(1083)

<400>	123															
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg																48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val																
1	5					10					15					
gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg																96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly																
	20					25					30					
cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg																144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu																
	35					40					45					
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa																192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys																
	50					55					60					
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct																240
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser																
65	70					75					80					
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct																288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser																
	85					90					95					
gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa																336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu																
	100					105					110					
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct																384
Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala																
	115					120					125					
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct																432
Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro																
	130					135					140					
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat																480
Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp																
145	150					155					160					
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct																528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro																
	165					170					175					
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca																576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro																
	180					185					190					
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag																624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys																
	195					200					205					
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt																672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys																
	210					215					220					
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca																720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala																
225	230					235					240					

atc	tat	gat	ttc	att	gtc	aag	ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa	768
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	
			245						250					255		

tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggc	816
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	
			260					265					270			

act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	864
Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	
		275					280					285				

aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	912
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	
	290					295					300					

acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggc	ttg	gaa	tac	960
Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	
305					310				315						320	

ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	1008
Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	
			325						330					335		

atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	1056
Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	
			340					345					350			

atg	gat	att	tta	aaa	gag	agt	gca	agt								1083
Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser								
		355					360									

<210> 124
 <211> 361
 <212> PRT
 <213> Homo sapiens

<400> 124

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5					10					15	

Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly
		20						25					30		

Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu
		35					40					45			

Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys
	50					55					60				

Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser
65					70					75					80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys
245 250 255

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
260 265 270

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
275 280 285

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
290 295 300

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
305 310 315 320

Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn

325

330

335

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
 340 345 350

Met Asp Ile Leu Lys Glu Ser Ala Ser
 355 360

<210> 125
 <211> 1263
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1263)

<400> 125
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30
 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
 Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45
 tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
 Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60
 tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
 Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80
 gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
 Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95
 gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa 336
 Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110
 ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct 384
 Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125
 gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct 432
 Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140
 tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat 480
 Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160

gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct	528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro	
165 170 175	
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca	576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro	
180 185 190	
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag	624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys	
195 200 205	
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt	672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys	
210 215 220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca	720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala	
225 230 235 240	
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct	768
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala	
245 250 255	
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga	816
Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly	
260 265 270	
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca	864
Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala	
275 280 285	
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg	912
Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp	
290 295 300	
gag gca gct gac gcc aag gca ttc tgt gga atg aaa tat tca tat gtg	960
Glu Ala Ala Asp Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val	
305 310 315 320	
cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag	1008
Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu	
325 330 335	
gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att	1056
Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile	
340 345 350	
ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga	1104
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly	
355 360 365	
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga	1152
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly	
370 375 380	
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt	1200
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe	
385 390 395 400	

gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta	1248
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu	
405 410 415	

aaa gag agt gca agt	1263
Lys Glu Ser Ala Ser	
420	

<210> 126
 <211> 421
 <212> PRT
 <213> Homo sapiens

<400> 126

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro

180	185	190
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys 195 200 205		
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys 210 215 220		
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala 225 230 235 240		
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala 245 250 255		
Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly 260 265 270		
Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala 275 280 285		
Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300		
Glu Ala Ala Asp Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val 305 310 315 320		
Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu 325 330 335		
Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile 340 345 350		
Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly 355 360 365		
Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly 370 375 380		
His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe 385 390 395 400		
Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu 405 410 415		
Lys Glu Ser Ala Ser 420		

<210> 127
 <211> 1251
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1251)

<400> 127
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30

 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
 Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45

 tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
 Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60

 tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
 Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80

 gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
 Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95

 gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa 336
 Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110

 ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct 384
 Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125

 gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct 432
 Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140

 tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat 480
 Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160

 gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct 528
 Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
 165 170 175

 ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca 576
 Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
 180 185 190

tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys 195 200 205	624
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys 210 215 220	672
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala 225 230 235 240	720
atc tat gat ttc att gtc aag ggc cgc aag tgt aat ggg cat gct gat Ile Tyr Asp Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp 245 250 255	768
acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser 260 265 270	816
ggg ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys 275 280 285	864
cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser 290 295 300	912
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys 305 310 315 320	960
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys 325 330 335	1008
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys 340 345 350	1056
cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro 355 360 365	1104
atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile 370 375 380	1152
aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp 385 390 395 400	1200
aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt gca Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala 405 410 415	1248
agt Ser	1251

<210> 128
<211> 417
<212> PRT
<213> Homo sapiens

<400> 128

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp
245 250 255

Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser
260 265 270

Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys
275 280 285

Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser
290 295 300

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
305 310 315 320

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
325 330 335

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
340 345 350

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
355 360 365

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
370 375 380

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
385 390 395 400

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
405 410 415

Ser

<210> 129
<211> 1239
<212> DNA
<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(1239)

<400> 129

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Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val	
1				5					10					15		

gcc	gca	gga	aaa	gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	96
Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	
			20					25					30			

cga	aaa	ctc	tgg	gca	gac	acc	acc	tgc	ggg	cag	aat	gct	acc	gaa	ctg	144
Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	
		35					40					45				

tac	tgc	ttc	tac	agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	192
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	
	50					55					60					

tgt	gac	aag	tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	240
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	
65					70				75						80	

gcc	atg	gca	gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	288
Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	
				85					90					95		

gcg	gag	gat	gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	336
Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	
			100					105					110			

ttc	tac	ttc	act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	384
Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	
		115					120					125				

gcc	atg	gtg	ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	432
Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	
	130					135					140					

tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	
145					150				155						160	

gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	
				165				170						175		

ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	
			180					185					190			

tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	
		195					200					205				

atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	
	210					215					220					

cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	720
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Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	
225					230					235					240	
atc	tat	gat	ttc	att	gtc	aag	ggc	ccg	tgt	tcc	tgc	cat	cca	gta	gga	768
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	
				245					250					255		
tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	816
Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	
			260					265					270			
ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	864
Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	
		275					280					285				
tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	912
Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	
	290					295					300					
tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	960
Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	
305					310					315					320	
cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	1008
His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	
				325					330					335		
tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	1056
Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	
			340					345					350			
cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	1104
Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	
		355					360					365				
ggg	ttg	gaa	tac	ctt	gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	1152
Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	
	370					375					380					
cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	1200
Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	
385					390					395					400	
gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	agt	gca	agt				1239
Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser				
			405						410							

<210> 130
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 130

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5					10					15	

Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly
			20					25					30		

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly
245 250 255

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
260 265 270

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
 275 280 285

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe
 290 295 300

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
 305 310 315 320

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 325 330 335

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 340 345 350

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 355 360 365

Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 370 375 380

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 385 390 395 400

Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 405 410

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 <211> 744
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(744)

<400> 131
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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 gcc gca gga agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct 96
 Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
 20 25 30
 gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc 144
 Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
 35 40 45
 cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag 192

His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln		
50						55					60						
cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	cgc	240	
His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Arg		
65				70				75							80		
aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	288	
Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp		
			85					90						95			
gag	gca	tca	ggg	agt	cgt	agt	ggt	ggt	gtc	tgt	gat	gac	tgt	cag	cac	336	
Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His		
			100					105					110				
aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	384	
Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg		
		115					120					125					
gac	ctg	cgg	aga	ccc	ttc	tca	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	432	
Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr		
	130					135					140						
tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggt	act	480	
Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr		
145					150				155						160		
cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	528	
His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys		
			165					170						175			
ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	acg	576	
Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr		
			180					185					190				
gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	624	
Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu		
		195					200					205					
gca	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	atg	672	
Ala	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met		
		210				215					220						
aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	720	
Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met		
225					230					235					240		
gat	att	tta	aaa	gag	agt	gca	agt									744	
Asp	Ile	Leu	Lys	Glu	Ser	Ala	Ser										
				245													

<210> 132
 <211> 248
 <212> PRT
 <213> Homo sapiens

<400> 132

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5						10				15	

Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
20 25 30

Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
35 40 45

His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
50 55 60

His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg
65 70 75 80

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
85 90 95

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
100 105 110

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
115 120 125

Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr
130 135 140

Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr
145 150 155 160

His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys
165 170 175

Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr
180 185 190

Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu
195 200 205

Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met
210 215 220

Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met
225 230 235 240

Asp Ile Leu Lys Glu Ser Ala Ser
245

<210> 133
 <211> 720
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(720)

<400> 133

atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
gcc gca gga cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac	96
Ala Ala Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp	
20 25 30	
gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat	144
Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp	
35 40 45	
gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag cca	192
Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro	
50 55 60	
ggc ttc tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat	240
Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His	
65 70 75 80	
cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac	288
Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp	
85 90 95	
ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt	336
Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg	
100 105 110	
tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc	384
Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala	
115 120 125	
aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag att	432
Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile	
130 135 140	
tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag att	480
Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile	
145 150 155 160	
aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga	528
Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg	
165 170 175	
aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca atc	576
Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile	
180 185 190	
ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga	624

Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg
195 200 205

aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa 672
Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys
210 215 220

cct tct ctt gga aga aaa gtc atg gat att tta aaa gag agt gca agt 720
Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
225 230 235 240

<210> 134
<211> 240
<212> PRT
<213> Homo sapiens

<400> 134

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp
20 25 30

Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp
35 40 45

Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro
50 55 60

Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His
65 70 75 80

Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp
85 90 95

Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg
100 105 110

Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala
115 120 125

Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile
130 135 140

Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile
145 150 155 160

Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg
165 170 175

Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile
180 185 190

Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg
195 200 205

Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys
210 215 220

Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
225 230 235 240

<210> 135
<211> 900
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(900)

<400> 135
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

gcc gca gga agc tgc ttc tgc aat ggc cac gct gat caa tgc ata cct 96
Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
20 25 30

gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc 144
Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
35 40 45

cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag 192
His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
50 55 60

cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac cgc 240
His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg
65 70 75 80

aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg 288
Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
85 90 95

gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac 336
Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
100 105 110

aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt 384
Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
115 120 125

gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat cca gta gga tca	432
Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser	
130 135 140	
gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt	480
Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly	
145 150 155 160	
gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc	528
Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys	
165 170 175	
atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc tgt	576
Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys	
180 185 190	
gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct cat	624
Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His	
195 200 205	
gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc tta	672
Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu	
210 215 220	
aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat cca	720
Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro	
225 230 235 240	
gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct ggt	768
Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly	
245 250 255	
ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc aaa cta	816
Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu	
260 265 270	
att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga	864
Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly	
275 280 285	
aga aaa gtc atg gat att tta aaa gag agt gca agt	900
Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser	
290 295 300	

<210> 136
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 136

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
20 25 30

Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val

35

40

45

His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
 50 55 60

His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg
 65 70 75 80

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
 85 90 95

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
 100 105 110

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
 115 120 125

Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser
 130 135 140

Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly
 145 150 155 160

Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys
 165 170 175

Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys
 180 185 190

Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His
 195 200 205

Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu
 210 215 220

Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro
 225 230 235 240

Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly
 245 250 255

Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu
 260 265 270

Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly
 275 280 285

Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
 290 295 300

<210> 137
 <211> 1431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1431)

<400> 137
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30
 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
 Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45
 tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
 Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60
 tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
 Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80
 gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
 Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95
 gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa 336
 Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110
 ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct 384
 Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125
 gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct 432
 Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140
 tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat 480
 Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160
 gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct 528
 Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
 165 170 175

ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca	576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro	
180 185 190	
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag	624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys	
195 200 205	
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt	672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys	
210 215 220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca	720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala	
225 230 235 240	
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct	768
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala	
245 250 255	
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga	816
Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly	
260 265 270	
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca	864
Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala	
275 280 285	
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg	912
Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp	
290 295 300	
gag gca gct gac cgc aag tgt aat ggg cat gct gat acc tgt cac ttc	960
Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe	
305 310 315 320	
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt	1008
Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys	
325 330 335	
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag	1056
Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys	
340 345 350	
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc	1104
Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe	
355 360 365	
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct	1152
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala	
370 375 380	
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc	1200
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val	
385 390 395 400	
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat	1248
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr	
405 410 415	
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct	1296

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
420 425 430

ggt ttg gaa tac ctt gca gca gga cat gag gat ata aga aca ggc aaa 1344
Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys
435 440 445

cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt 1392
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
450 455 460

gga aga aaa gtc atg gat att tta aaa gag agt gca agt 1431
Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
465 470 475

<210> 138
<211> 477
<212> PRT
<213> Homo sapiens

<400> 138

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
305 310 315 320

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
325 330 335

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
340 345 350

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe
355 360 365

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
370 375 380

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
385 390 395 400

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
405 410 415

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
420 425 430

Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys
435 440 445

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
450 455 460

Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala Ser
465 470 475

<210> 139
<211> 1407
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1407)

<400> 139
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa 336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct 384

Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala		
		115					120					125					
gcc	atg	gtg	ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	432	
Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro		
	130					135					140						
tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480	
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp		
145					150					155					160		
gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528	
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro		
				165					170					175			
ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576	
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro		
			180					185					190				
tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624	
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys		
		195					200					205					
atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672	
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys		
		210				215					220						
cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gca	720	
Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala		
225					230					235					240		
atc	tat	gat	ttc	att	gtc	aag	ggc	cgc	aag	tgt	aat	ggg	cat	gct	gat	768	
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp		
				245					250					255			
acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	ggg	agt	cgt	agt	816	
Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser		
			260					265					270				
ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	gga	cag	tat	tgc	864	
Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys		
		275					280					285					
cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	aga	ccc	ttc	tca	912	
Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser		
	290					295					300						
ccg	tgt	tcc	tgc	cat	cca	gta	gga	tca	gct	gtc	ctt	cct	gcc	aac	tca	960	
Pro	Cys	Ser	Cys	His	Pro	Val	Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser		
305					310					315					320		
gtg	acc	ttc	tgc	gac	ccc	agc	aat	ggg	gac	tgc	cct	tgc	aag	cct	ggg	1008	
Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly		
				325					330					335			
gtg	gca	ggg	cga	cgt	tgt	gac	agg	tgc	atg	gtg	gga	tac	tgg	ggc	ttc	1056	
Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe		
			340					345					350				
gga	gac	tat	ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	1104	
Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val		

355	360	365	
cta aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu 370 375 380			1152
gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile 385 390 395 400			1200
ttc cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly 405 410 415			1248
tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gca gca gga Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly 420 425 430			1296
cat gag gat ata aga aca ggc aaa cta att gtg aat atg aaa agc ttt His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe 435 440 445			1344
gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg gat att tta Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu 450 455 460			1392
aaa gag agt gca agt Lys Glu Ser Ala Ser 465			1407

<210> 140
 <211> 469
 <212> PRT
 <213> Homo sapiens

<400> 140

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp
245 250 255

Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser
260 265 270

Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys
275 280 285

Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser
290 295 300

Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser
305 310 315 320

Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly
325 330 335

Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe
340 345 350

Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
355 360 365

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
370 375 380

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
385 390 395 400

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
405 410 415

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly
420 425 430

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
435 440 445

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
450 455 460

Lys Glu Ser Ala Ser
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<210> 141
<211> 1419
<212> DNA
<213> Homo sapiens

<220>
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<222> (1)..(1419)

<400> 141
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30
cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys

50	55	60	
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser 65 70 75 80			240
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser 85 90 95			288
gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu 100 105 110			336
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala 115 120 125			384
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro 130 135 140			432
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp 145 150 155 160			480
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro 165 170 175			528
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro 180 185 190			576
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys 195 200 205			624
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys 210 215 220			672
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala 225 230 235 240			720
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala 245 250 255			768
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly 260 265 270			816
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala 275 280 285			864
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300			912

gag gca gct gac ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt	960
Glu Ala Ala Asp Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu	
305 310 315 320	

cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct	1008
Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro	
325 330 335	

tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga	1056
Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly	
340 345 350	

tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc tgt gga atg aaa	1104
Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys	
355 360 365	

tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt	1152
Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly	
370 375 380	

act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc	1200
Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr	
385 390 395 400	

aaa ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca tgg	1248
Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp	
405 410 415	

acg gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac	1296
Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr	
420 425 430	

ctt gca gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat	1344
Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn	
435 440 445	

atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc	1392
Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val	
450 455 460	

atg gat att tta aaa gag agt gca agt	1419
Met Asp Ile Leu Lys Glu Ser Ala Ser	
465 470	

<210> 142
 <211> 473
 <212> PRT
 <213> Homo sapiens

<400> 142

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala

275

280

285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
 290 295 300

Glu Ala Ala Asp Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu
 305 310 315 320

Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro
 325 330 335

Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly
 340 345 350

Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys
 355 360 365

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
 370 375 380

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
 385 390 395 400

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
 405 410 415

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
 420 425 430

Leu Ala Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
 435 440 445

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
 450 455 460

Met Asp Ile Leu Lys Glu Ser Ala Ser
 465 470

<210> 143
 <211> 1587
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)..(1587)

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1	5					10					15					
gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg																96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly																
	20					25					30					
cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg																144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu																
	35					40					45					
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa																192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys																
	50					55					60					
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct																240
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser																
65	70					75					80					
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct																288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser																
	85					90					95					
gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa																336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu																
	100					105					110					
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct																384
Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala																
	115					120					125					
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct																432
Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro																
	130					135					140					
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat																480
Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp																
145	150					155					160					
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct																528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro																
	165					170					175					
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca																576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro																
	180					185					190					
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag																624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys																
	195					200					205					
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt																672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys																
	210					215					220					
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gca																720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala																
225	230					235					240					

atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gct Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala 245 250 255	768
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly 260 265 270	816
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala 275 280 285	864
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300	912
gag gca gct gac cgc aag tgt aat ggg cat gct gat acc tgt cac ttc Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe 305 310 315 320	960
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys 325 330 335	1008
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys 340 345 350	1056
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys 355 360 365	1104
cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys 370 375 380	1152
gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg 385 390 395 400	1200
cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly 405 410 415	1248
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys 420 425 430	1296
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys 435 440 445	1344
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys 450 455 460	1392
cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro 465 470 475 480	1440
atc ctc aat cct ggt ttg gaa tac ctt gca gca gga cat gag gat ata	1488

Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Ala	Ala	Gly	His	Glu	Asp	Ile		
				485					490					495			
aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1536	
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp		
			500					505					510				
aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	gag	agt	gca	1584	
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Glu	Ser	Ala		
		515					520					525					
agt																1587	
Ser																	

<210> 144
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 144

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
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Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly
			20					25					30		

Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu
		35					40					45			

Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys
	50					55					60				

Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser
65				70						75					80

Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser
				85					90					95	

Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu
			100					105					110		

Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala
		115					120					125			

Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro
	130					135					140				

Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp
145					150					155					160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
305 310 315 320

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
325 330 335

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
340 345 350

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys
355 360 365

His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys
370 375 380

Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg
385 390 395 400

Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly
 405 410 415

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
 420 425 430

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
 435 440 445

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
 450 455 460

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 465 470 475 480

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His Glu Asp Ile
 485 490 495

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
 500 505 510

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Glu Ser Ala
 515 520 525

Ser

<210> 145
 <211> 822
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(822)

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 gcc gca gga agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata cct 96
 Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
 20 25 30
 gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc 144
 Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
 35 40 45
 cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag 192

His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln		
50						55					60						
cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	gag	gca	gct	gac	ggc	240	
His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Gly		
65					70					75					80		
aaa	acg	ggg	gct	ccc	aac	gag	tgc	aga	acc	cgc	aag	tgt	aat	ggg	cat	288	
Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn	Gly	His		
				85					90					95			
gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	ggg	agt	336	
Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser		
			100					105					110				
cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	gga	cag	384	
Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln		
		115					120					125					
tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	aga	ccc	432	
Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro		
		130				135					140						
ttc	tca	gct	cca	gat	gct	tgc	aaa	ccg	tgt	tcc	tgc	cat	cca	gta	gga	480	
Phe	Ser	Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	Cys	His	Pro	Val	Gly		
145					150					155					160		
tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	528	
Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn		
				165					170					175			
ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	576	
Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg		
			180					185					190				
tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	tgt	cga	cca	tgt	624	
Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Cys	Arg	Pro	Cys		
		195					200					205					
gac	tgt	gcg	ggg	agc	tgt	gac	cct	atc	acc	gga	gac	tgc	atc	agc	agc	672	
Asp	Cys	Ala	Gly	Ser	Cys	Asp	Pro	Ile	Thr	Gly	Asp	Cys	Ile	Ser	Ser		
	210					215					220						
cac	aca	gac	ata	gac	tgg	tgt	cat	gaa	gtt	cct	gac	ttc	cgt	ccc	gtg	720	
His	Thr	Asp	Ile	Asp	Trp	Cys	His	Glu	Val	Pro	Asp	Phe	Arg	Pro	Val		
225					230					235					240		
cac	aat	aag	agc	gaa	cca	gcc	tgg	gag	tgg	gag	gat	gcg	cag	ggg	ttt	768	
His	Asn	Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly	Phe		
				245					250					255			
tct	gca	ctt	cta	cac	tca	ggt	aaa	tgc	gaa	tgt	aag	gaa	cag	aca	tta	816	
Ser	Ala	Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr	Leu		
			260					265					270				
gga	aag															822	
Gly	Lys																

<211> 274
<212> PRT
<213> Homo sapiens

<400> 146

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
20 25 30

Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
35 40 45

His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
50 55 60

His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly
65 70 75 80

Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His
85 90 95

Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser
100 105 110

Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln
115 120 125

Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro
130 135 140

Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly
145 150 155 160

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
165 170 175

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
180 185 190

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys
195 200 205

Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser
210 215 220

His	Thr	Asp	Ile	Asp	Trp	Cys	His	Glu	Val	Pro	Asp	Phe	Arg	Pro	Val
225					230					235					240

His	Asn	Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly	Phe
			245					250						255	

Ser	Ala	Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr	Leu
		260						265					270		

Gly Lys

<210> 147
 <211> 1509
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1509)

<400> 147	
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg	96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly	
20 25 30	
cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg	144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu	
35 40 45	
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa	192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys	
50 55 60	
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct	240
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser	
65 70 75 80	
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct	288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser	
85 90 95	
gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa	336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu	
100 105 110	
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct	384
Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala	
115 120 125	
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct	432

Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	
130						135					140					
tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	
145					150					155					160	
gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	
				165					170					175		
ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	
			180					185					190			
tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	
		195					200					205				
atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	
	210					215					220					
cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	720
Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	
225					230					235					240	
atc	tat	gat	ttc	att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gcc	768
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	
				245					250					255		
gat	caa	tgc	ata	cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	816
Asp	Gln	Cys	Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	
			260					265					270			
aca	ttc	cac	atg	gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	864
Thr	Phe	His	Met	Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	
		275					280					285				
ggc	agc	cac	tgc	cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tgg	912
Gly	Ser	His	Cys	Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	
	290					295					300					
gag	gca	gct	gac	ggc	aaa	acg	ggg	gct	ccc	aac	gag	tgc	aga	acc	cgc	960
Glu	Ala	Ala	Asp	Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	
305					310					315					320	
aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	1008
Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	
				325					330					335		
gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	1056
Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	
			340					345					350			
aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	1104
Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	
		355					360					365				
gac	ctg	cgg	aga	ccc	ttc	tca	gct	cca	gat	gct	tgc	aaa	ccg	tgt	tcc	1152
Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	

370	375	380	
tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc			1200
Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe			
385	390	395	400
tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg			1248
Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly			
	405	410	415
cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat			1296
Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr			
	420	425	430
ggc tgt cga cca tgt gac tgt gcg ggg agc tgt gac cct atc acc gga			1344
Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly			
	435	440	445
gac tgc atc agc agc cac aca gac ata gac tgg tgt cat gaa gtt cct			1392
Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro			
	450	455	460
gac ttc cgt ccc gtg cac aat aag agc gaa cca gcc tgg gagtgg gag			1440
Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu			
	465	470	475
gat gcg cag ggg ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt			1488
Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys			
	485	490	495
aag gaa cag aca tta gga aag			1509
Lys Glu Gln Thr Leu Gly Lys			
	500		

<210> 148
 <211> 503
 <212> PRT
 <213> Homo sapiens

<400> 148

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1	15
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly	
20	30
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu	
35	45
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys	
50	60
Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser	
65	80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg
305 310 315 320

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
 325 330 335

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
 340 345 350

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
 355 360 365

Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser
 370 375 380

Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe
 385 390 395 400

Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly
 405 410 415

Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr
 420 425 430

Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly
 435 440 445

Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro
 450 455 460

Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu
 465 470 475 480

Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys
 485 490 495

Lys Glu Gln Thr Leu Gly Lys
 500

<210> 149
 <211> 1848
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1848)

<400> 149
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val

1	5	10	15	
gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg				96
Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly	20	25	30	
cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg				144
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu	35	40	45	
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa				192
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys	50	55	60	
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct				240
Cys Asp Lys Cys Asn Ala Tyr Pro His Leu Ala His Leu Pro Ser	65	70	75	80
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct				288
Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser	85	90	95	
gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaagct gaa				336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu	100	105	110	
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct				384
Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala	115	120	125	
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct				432
Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro	130	135	140	
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat				480
Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp	145	150	155	160
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct				528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro	165	170	175	
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca				576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro	180	185	190	
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag				624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys	195	200	205	
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt				672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys	210	215	220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gcg				720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala	225	230	235	240
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc				768
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala	245	250	255	

gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly 260 265 270	816
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala 275 280 285	864
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300	912
gag gca gct gac ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg 305 310 315 320	960
aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp 325 330 335	1008
gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His 340 345 350	1056
aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg 355 360 365	1104
gac ctg cgg aga ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser 370 375 380	1152
tgc cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe 385 390 395 400	1200
tgc gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly 405 410 415	1248
cga cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr 420 425 430	1296
ggc tgt cga cca tgt gac tgt gcg ggg agc tgt gac cct atc acc gga Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly 435 440 445	1344
gac tgc atc agc agc cac aca gac ata gac tgg tgt cat gaa gtt cct Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro 450 455 460	1392
gac ttc cgt ccc gtg cac aat aag agc gaa cca gcc tgg gag tgg gag Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu 465 470 475 480	1440
gat gcg cag ggg ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys 485 490 495	1488

aag gaa cag aca tta gga aag gcc aag gca ttc tgt gga atg aaa tat	1536
Lys Glu Gln Thr Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr	
500 505 510	

tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act	1584
Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr	
515 520 525	

cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa	1632
His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys	
530 535 540	

ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca tgg acg	1680
Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr	
545 550 555 560	

gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt	1728
Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu	
565 570 575	

gta gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg	1776
Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met	
580 585 590	

aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg	1824
Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met	
595 600 605	

gat att tta aaa aga gag tgc aag	1848
Asp Ile Leu Lys Arg Glu Cys Lys	
610 615	

<210> 150
 <211> 616
 <212> PRT
 <213> Homo sapiens

<400> 150

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser

85

90

95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg
305 310 315 320

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
325 330 335

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
340 345 350

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
355 360 365

Asp Leu Arg Arg Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser
370 375 380

Cys His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe
385 390 395 400

Cys Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly
405 410 415

Arg Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr
420 425 430

Gly Cys Arg Pro Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly
435 440 445

Asp Cys Ile Ser Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro
450 455 460

Asp Phe Arg Pro Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu
465 470 475 480

Asp Ala Gln Gly Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys
485 490 495

Lys Glu Gln Thr Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr
500 505 510

Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr
515 520 525

His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys
530 535 540

Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr
545 550 555 560

Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu
565 570 575

Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met
			580					585					590		

Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met
		595					600					605			

Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys
	610					615	

<210> 151
 <211> 1161
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1161)

<400> 151	
atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg	48
Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
gcc gca gga agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata cct	96
Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro	
20 25 30	
gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc	144
Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val	
35 40 45	
cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag	192
His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln	
50 55 60	
cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc	240
His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly	
65 70 75 80	
aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat	288
Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His	
85 90 95	
gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt	336
Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser	
100 105 110	
cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag	384
Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln	
115 120 125	
tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc	432
Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro	
130 135 140	
ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga	480

[illegible]

385

<210> 152
<211> 387
<212> PRT
<213> Homo sapiens

<400> 152

Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
20 25 30

Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
35 40 45

His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
50 55 60

His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly
65 70 75 80

Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His
85 90 95

Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser
100 105 110

Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln
115 120 125

Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro
130 135 140

Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly
145 150 155 160

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
165 170 175

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
180 185 190

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys
195 200 205

Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser
 210 215 220

His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro Val
 225 230 235 240

His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe
 245 250 255

Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu
 260 265 270

Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys
 275 280 285

Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn
 290 295 300

Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg
 305 310 315 320

Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr
 325 330 335

Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu
 340 345 350

Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln
 355 360 365

His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg
 370 375 380

Glu Cys Lys
 385

<210> 153
 <211> 564
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(564)

<400> 153
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
1				5					10					15			
gcc	gca	gga	cgc	aag	tgt	aat	ggg	cat	gct	gat	acc	tgt	cac	ttc	gac		96
Ala	Ala	Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp		
			20					25					30				
gtt	aat	gtg	tgg	gag	gca	tca	ggg	agt	cgt	agt	ggg	ggg	gtc	tgt	gat		144
Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp		
		35					40					45					
gac	tgt	cag	cac	aac	aca	gaa	gga	cag	tat	tgc	cag	agg	tgc	aag	cca		192
Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro		
	50						55				60						
ggc	ttc	tat	cgt	gac	ctg	cgg	aga	ccc	ttc	tca	gcc	aag	gca	ttc	tgt		240
Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	Ala	Lys	Ala	Phe	Cys		
65					70				75						80		
gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat		288
Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His		
				85					90					95			
gat	aaa	ggt	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta		336
Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu		
			100					105					110				
aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca		384
Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro		
		115					120					125					
gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggt		432
Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly		
	130					135					140						
ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta		480
Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu		
145					150					155					160		
att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga		528
Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly		
				165					170					175			
aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	aag						564
Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys						
			180					185									

<210> 154
 <211> 188
 <212> PRT
 <213> Homo sapiens

<400> 154

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
1				5					10					15			
Ala	Ala	Gly	Arg	Lys	Cys	Asn	Gly	His	Ala	Asp	Thr	Cys	His	Phe	Asp		
			20					25					30				

Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp
 35 40 45
 Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro
 50 55 60
 Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys
 65 70 75 80
 Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His
 85 90 95
 Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu
 100 105 110
 Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro
 115 120 125
 Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly
 130 135 140
 Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu
 145 150 155 160
 Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly
 165 170 175
 Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 180 185

<210> 155
 <211> 1083
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1083)

<400> 155
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30

cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu 35 40 45	144
tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys 50 55 60	192
tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser 65 70 75 80	240
gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser 85 90 95	288
gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu 100 105 110	336
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala 115 120 125	384
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro 130 135 140	432
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp 145 150 155 160	480
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro 165 170 175	528
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro 180 185 190	576
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys 195 200 205	624
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys 210 215 220	672
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gcg Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala 225 230 235 240	720
atc tat gat ttc att gtc aag ggc gcc aag gca ttc tgt gga atg aaa Ile Tyr Asp Phe Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys 245 250 255	768
tat tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly 260 265 270	816
act cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc	864

Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr		
		275					280					285					
aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	912	
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp		
	290					295					300						
acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	ttg	gaa	tac	960	
Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr		
305					310					315					320		
ctt	gta	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	1008	
Leu	Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn		
				325					330					335			
atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	1056	
Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val		
			340					345					350				
atg	gat	att	tta	aaa	aga	gag	tgc	aag								1083	
Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys									
		355					360										
<210>	156																
<211>	361																
<212>	PRT																
<213>	Homo sapiens																
<400>	156																
Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
1				5					10					15			
Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly		
			20					25					30				
Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu		
		35					40					45					
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys		
	50					55					60						
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser		
65				70						75					80		
Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser		
				85					90					95			
Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu		
			100					105					110				
Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala		
		115					120					125					

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ala Lys Ala Phe Cys Gly Met Lys
245 250 255

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
260 265 270

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
275 280 285

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
290 295 300

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
305 310 315 320

Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
325 330 335

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
340 345 350

Met Asp Ile Leu Lys Arg Glu Cys Lys
355 360

<210> 157
 <211> 1263
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1263)

<400> 157
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30
 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
 Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45
 tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
 Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60
 tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
 Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80
 gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
 Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95
 gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa 336
 Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110
 ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct 384
 Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125
 gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct 432
 Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140
 tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat 480
 Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160
 gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct 528
 Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
 165 170 175
 ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca 576
 Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
 180 185 190
 tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag 624

Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	
		195					200					205				
atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	
		210				215					220					
cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	720
Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	
225					230					235					240	
atc	tat	gat	ttc	att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gcc	768
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	
				245					250					255		
gat	caa	tgc	ata	cct	ggt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	816
Asp	Gln	Cys	Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	
			260					265					270			
aca	ttc	cac	atg	gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	864
Thr	Phe	His	Met	Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	
		275					280					285				
ggc	agc	cac	tgc	cag	cac	tgt	gcc	ccg	tta	tac	aat	gac	cgg	cca	tg	912
Gly	Ser	His	Cys	Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	
	290					295					300					
gag	gca	gct	gat	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	960
Glu	Ala	Ala	Asp	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	
305					310					315					320	
cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggt	act	cat	ggt	gag	1008
Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	
				325					330					335		
gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	1056
Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	
			340					345					350			
ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	1104
Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	
		355					360					365				
tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gta	gca	gga	1152
Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	
	370					375					380					
cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	1200
His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	
385					390					395					400	
gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	1248
Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	
				405					410					415		
aaa	aga	gag	tgc	aag												1263
Lys	Arg	Glu	Cys	Lys												
			420													

<211> 421
<212> PRT
<213> Homo sapiens

<400> 158

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val
305 310 315 320

Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu
325 330 335

Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile
340 345 350

Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly
355 360 365

Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly
370 375 380

His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe
385 390 395 400

Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu
405 410 415

Lys Arg Glu Cys Lys
420

<210> 159
<211> 1251
<212> DNA
<213> Homo sapiens

<220>
<221> CDS

<222> (1)..(1251)

<400> 159

atg	ggg	agc	tgc	gcg	cgg	ctg	ctg	ctg	ctc	tgg	ggc	tgc	acg	gtg	gtg	48
Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val	
1				5					10					15		

gcc	gca	gga	aaa	gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	96
Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	
			20					25					30			

cga	aaa	ctc	tgg	gca	gac	acc	acc	tgc	ggg	cag	aat	gct	acc	gaa	ctg	144
Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	
		35					40					45				

tac	tgc	ttc	tac	agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	192
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	
	50					55					60					

tgt	gac	aag	tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	240
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	
65					70					75					80	

gcc	atg	gca	gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	288
Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	
				85					90					95		

gcg	gag	gat	gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	336
Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	
			100					105					110			

ttc	tac	ttc	act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	384
Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	
		115					120					125				

gcc	atg	gtg	ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	432
Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	
	130					135					140					

tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	
145				150					155					160		

gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	
			165					170						175		

ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	
			180					185					190			

tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	
		195					200					205				

atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	
	210					215					220					

cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	720
Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	

225	230	235	240	
atc tat gat ttc att gtc aag ggc cgc aag tgt aat ggg cat gct gat				768
Ile Tyr Asp Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp	245	250	255	
acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt				816
Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser	260	265	270	
ggg ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc				864
Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys	275	280	285	
cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca				912
Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser	290	295	300	
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag				960
Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys	305	310	315	320
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag				1008
Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys	325	330	335	
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag				1056
Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys	340	345	350	
cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca				1104
Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro	355	360	365	
atc ctc aat cct ggt ttg gaa tac ctt gta gca gga cat gag gat ata				1152
Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile	370	375	380	
aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg				1200
Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp	385	390	395	400
aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa aga gag tgc				1248
Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys	405	410	415	
aag				1251
Lys				

<210> 160
 <211> 417
 <212> PRT
 <213> Homo sapiens

<400> 160

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Arg Lys Cys Asn Gly His Ala Asp
245 250 255

Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser
 260 265 270

Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys
 275 280 285

Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser
 290 295 300

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
 305 310 315 320

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
 325 330 335

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
 340 345 350

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 355 360 365

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile
 370 375 380

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
 385 390 395 400

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys
 405 410 415

Lys

<210> 161
 <211> 1239
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1239)

<400> 161
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly

20										25										30										
cga	aaa	ctc	tgg	gca	gac	acc	acc	tgc	ggt	cag	aat	gct	acc	gaa	ctg	144														
Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu															
		35					40					45																		
tac	tgc	ttc	tac	agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	192														
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys															
	50					55					60																			
tgt	gac	aag	tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	240														
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser															
65					70					75					80															
gcc	atg	gca	gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	288														
Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser															
				85				90						95																
gcg	gag	gat	gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	336														
Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu															
			100					105					110																	
ttc	tac	ttc	act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	384														
Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala															
		115					120					125																		
gcc	atg	gtg	ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	432														
Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro															
	130					135					140																			
tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480														
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp															
145					150					155					160															
gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528														
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro															
				165					170					175																
ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576														
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro															
			180					185					190																	
tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624														
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys															
		195					200					205																		
atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672														
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys															
		210				215					220																			
cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	720														
Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala															
225					230					235					240															
atc	tat	gat	ttc	att	gtc	aag	ggc	ccg	tgt	tcc	tgc	cat	cca	gta	gga	768														
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Pro	Cys	Ser	Cys	His	Pro	Val	Gly															
				245					250					255																
tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	aat	816														
Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn															
			260					265					270																	

ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg	864
Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg	
275 280 285	
tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc aag gca ttc	912
Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe	
290 295 300	
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct	960
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala	
305 310 315 320	
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc	1008
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val	
325 330 335	
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat	1056
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr	
340 345 350	
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct	1104
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro	
355 360 365	
ggt ttg gaa tac ctt gta gca gga cat gag gat ata aga aca ggc aaa	1152
Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys	
370 375 380	
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt	1200
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu	
385 390 395 400	
gga aga aaa gtc atg gat att tta aaa aga gag tgc aag	1239
Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys	
405 410	

<210> 162
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 162

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val	
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Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly	
20 25 30	
Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu	
35 40 45	
Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys	
50 55 60	

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Pro Cys Ser Cys His Pro Val Gly
245 250 255

Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn
260 265 270

Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg
275 280 285

Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe
290 295 300

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala

305 310 315 320
 His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 325 330 335
 Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 340 345 350
 Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 355 360 365
 Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 370 375 380
 Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 385 390 395 400
 Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 405 410

<210> 163
 <211> 744
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(744)

<400> 163
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
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 gcc gca gga agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata cct 96
 Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
 20 25 30
 gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc 144
 Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
 35 40 45
 cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag 192
 His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
 50 55 60
 cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gat cgc 240
 His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg
 65 70 75 80
 aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg 288
 Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
 85 90 95

gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac	336
Glu Ala Ser Gly Ser Arg Ser Gly Val Cys Asp Asp Cys Gln His	
100 105 110	
aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt	384
Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg	
115 120 125	
gac ctg cgg aga ccc ttc tca gcc aag gca ttc tgt gga atg aaa tat	432
Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr	
130 135 140	
tca tat gtg cta aaa ata aag att tta tca gct cat gat aaa ggt act	480
Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr	
145 150 155 160	
cat gtt gag gtc aat gtg aag att aaa aag gtc tta aaa tct acc aaa	528
His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys	
165 170 175	
ctg aag att ttc cga gga aag cga aca tta tat cca gaa tca tgg acg	576
Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr	
180 185 190	
gac aga gga tgc act tgt cca atc ctc aat cct ggt ttg gaa tac ctt	624
Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu	
195 200 205	
gta gca gga cat gag gat ata aga aca ggc aaa cta att gtg aat atg	672
Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met	
210 215 220	
aaa agc ttt gtc cag cac tgg aaa cct tct ctt gga aga aaa gtc atg	720
Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met	
225 230 235 240	
gat att tta aaa aga gag tgc aag	744
Asp Ile Leu Lys Arg Glu Cys Lys	
245	

<210> 164
 <211> 248
 <212> PRT
 <213> Homo sapiens

<400> 164

Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val	
1 5 10 15	
Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro	
20 25 30	
Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val	
35 40 45	

His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
50 55 60

His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg
65 70 75 80

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
85 90 95

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
100 105 110

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
115 120 125

Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe Cys Gly Met Lys Tyr
130 135 140

Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr
145 150 155 160

His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys
165 170 175

Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr
180 185 190

Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu
195 200 205

Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met
210 215 220

Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met
225 230 235 240

Asp Ile Leu Lys Arg Glu Cys Lys
245

<210> 165
<211> 720
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(720)

<400>	165															
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Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val																
1	5 10 15															
gcc gca gga cgc aag tgt aat ggg cat gct gat acc tgt cac ttc gac																96
Ala Ala Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp																
	20 25 30															
gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat																144
Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp																
	35 40 45															
gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag cca																192
Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro																
	50 55 60															
ggc ttc tat cgt gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat																240
Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His																
65	70 75 80															
cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac																288
Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp																
	85 90 95															
ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt																336
Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg																
	100 105 110															
tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc gcc																384
Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala																
	115 120 125															
aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag att																432
Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile																
	130 135 140															
tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag att																480
Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile																
145	150 155 160															
aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag cga																528
Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg																
	165 170 175															
aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca atc																576
Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile																
	180 185 190															
ctc aat cct ggt ttg gaa tac ctt gta gca gga cat gag gat ata aga																624
Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg																
	195 200 205															
aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa																672
Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys																
	210 215 220															
cct tct ctt gga aga aaa gtc atg gat att tta aaa aga gag tgc aag																720
Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys																
225	230 235 240															

<210> 166
<211> 240
<212> PRT
<213> Homo sapiens

<400> 166

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp
20 25 30

Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp
35 40 45

Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro
50 55 60

Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His
65 70 75 80

Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp
85 90 95

Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg
100 105 110

Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala
115 120 125

Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile
130 135 140

Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile
145 150 155 160

Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg
165 170 175

Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile
180 185 190

Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg
195 200 205

Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys
 210 215 220

Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 225 230 235 240

<210> 167
 <211> 900
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(900)

<400> 167
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

gcc gca gga agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata cct 96
 Ala Ala Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro
 20 25 30

gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc 144
 Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val
 35 40 45

cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag 192
 His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln
 50 55 60

cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gat cgc 240
 His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Arg
 65 70 75 80

aag tgt aat ggg cat gct gat acc tgt cac ttc gac gtt aat gtg tgg 288
 Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
 85 90 95

gag gca tca ggg agt cgt agt ggt ggt gtc tgt gat gac tgt cag cac 336
 Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
 100 105 110

aac aca gaa gga cag tat tgc cag agg tgc aag cca ggc ttc tat cgt 384
 Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
 115 120 125

gac ctg cgg aga ccc ttc tca ccg tgt tcc tgc cat cca gta gga tca 432
 Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser
 130 135 140

gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt 480
 Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly
 145 150 155 160

gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc 528
 Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys

165										170					175					
atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	tgt	576				
Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	Cys					
		180						185					190							
gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	624				
Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His					
		195					200					205								
gat	aaa	ggt	act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	672				
Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu					
	210					215					220									
aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	720				
Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro					
225				230						235					240					
gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	768				
Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly					
			245					250					255							
ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	816				
Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu					
		260						265					270							
att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	864				
Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly					
		275					280					285								
aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	aag					900				
Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys									
	290					295					300									

<210> 168
 <211> 300
 <212> PRT
 <213> Homo sapiens

<400> 168

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5					10					15	
Ala	Ala	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	Pro
		20						25					30		
Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	Val
		35					40					45			
His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln
	50					55					60				
His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Arg
65					70					75					80

Lys Cys Asn Gly His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp
85 90 95

Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His
100 105 110

Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg
115 120 125

Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys His Pro Val Gly Ser
130 135 140

Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly
145 150 155 160

Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys
165 170 175

Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys
180 185 190

Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His
195 200 205

Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu
210 215 220

Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro
225 230 235 240

Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly
245 250 255

Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu
260 265 270

Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly
275 280 285

Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
290 295 300

<210> 169
<211> 1431
<212> DNA
<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(1431)

<400> 169

atg	ggg	agc	tgc	gcg	cgg	ctg	ctg	ctg	ctc	tgg	ggc	tgc	acg	gtg	gtg	48
Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val	
1			5						10					15		

gcc	gca	gga	aaa	gcc	tgc	aac	cct	cgg	atg	gga	aat	ttg	gct	ttg	ggg	96
Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	
			20					25					30			

cga	aaa	ctc	tgg	gca	gac	acc	acc	tgc	ggg	cag	aat	gct	acc	gaa	ctg	144
Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	
		35					40					45				

tac	tgc	ttc	tac	agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	192
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	
	50					55					60					

tgt	gac	aag	tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	240
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	
65					70					75					80	

gcc	atg	gca	gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	288
Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	
				85					90					95		

gcg	gag	gat	gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	336
Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	
			100					105					110			

ttc	tac	ttc	act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	384
Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	
		115					120					125				

gcc	atg	gtg	ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	432
Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	
	130					135					140					

tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	
145					150					155					160	

gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	
				165					170					175		

ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	
			180					185					190			

tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	
		195					200					205				

atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	

210	215	220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gcg			720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala			
225	230	235	240
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc			768
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala			
	245	250	255
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga			816
Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly			
	260	265	270
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca			864
Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala			
	275	280	285
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg			912
Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp			
	290	295	300
gag gca gct gat cgc aag tgt aat ggg cat gct gat acc tgt cac ttc			960
Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe			
305	310	315	320
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt			1008
Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys			
	325	330	335
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag			1056
Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys			
	340	345	350
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc			1104
Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe			
	355	360	365
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct			1152
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala			
	370	375	380
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc			1200
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val			
385	390	395	400
tta aaa tct acc aaa ctg aag att ttc cga gga aag cga aca tta tat			1248
Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr			
	405	410	415
cca gaa tca tgg acg gac aga gga tgc act tgt cca atc ctc aat cct			1296
Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro			
	420	425	430
ggt ttg gaa tac ctt gta gca gga cat gag gat ata aga aca ggc aaa			1344
Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys			
	435	440	445
cta att gtg aat atg aaa agc ttt gtc cag cac tgg aaa cct tct ctt			1392
Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu			
	450	455	460

gga aga aaa gtc atg gat att tta aaa aga gag tgc aag 1431
 Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 465 470 475

<210> 170
 <211> 477
 <212> PRT
 <213> Homo sapiens

<400> 170

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
 165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
 180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
305 310 315 320

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
325 330 335

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
340 345 350

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe
355 360 365

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
370 375 380

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
385 390 395 400

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
405 410 415

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
420 425 430

Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys

435

440

445

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 450 455 460

Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 465 470 475

<210> 171
 <211> 1431
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1431)

<400> 171
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
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 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30
 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
 Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45
 tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
 Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60
 tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
 Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80
 gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
 Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95
 gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa 336
 Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
 100 105 110
 ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct 384
 Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
 115 120 125
 gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct 432
 Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
 130 135 140
 tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat 480
 Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160

gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct	528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro	
165 170 175	
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca	576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro	
180 185 190	
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag	624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys	
195 200 205	
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt	672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys	
210 215 220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gcg	720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala	
225 230 235 240	
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc	768
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala	
245 250 255	
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga	816
Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly	
260 265 270	
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca	864
Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala	
275 280 285	
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg	912
Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp	
290 295 300	
gag gca gct gat cgc aag tgt aat ggg cat gct gat acc tgt cac ttc	960
Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe	
305 310 315 320	
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt	1008
Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys	
325 330 335	
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag	1056
Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys	
340 345 350	
cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca gcc aag gca ttc	1104
Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe	
355 360 365	
tgt gga atg aaa tat tca tat gtg cta aaa ata aag att tta tca gct	1152
Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala	
370 375 380	
cat gat aaa ggt act cat gtt gag gtc aat gtg aag att aaa aag gtc	1200
His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val	
385 390 395 400	

tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	1248
Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	
				405					410					415		

cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	1296
Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	
			420					425					430			

ggt	ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	1344
Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	
		435					440					445				

cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	1392
Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	
	450					455					460					

gga	aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	aag				1431
Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys				
465					470					475						

<210> 172
 <211> 477
 <212> PRT
 <213> Homo sapiens

<400> 172

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val
1				5					10					15	

Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly
			20					25					30		

Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu
		35					40					45			

Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys
	50					55					60				

Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser
65					70					75					80

Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser
				85					90					95	

Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu
			100					105					110		

Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala
		115					120					125			

Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

130

135

140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
 145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
 165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
 180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
 195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
 210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
 225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
 245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
 260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
 275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
 290 295 300

Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
 305 310 315 320

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
 325 330 335

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
 340 345 350

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Lys Ala Phe
 355 360 365

Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala
 370 375 380

His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val
 385 390 395 400

Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr
 405 410 415

Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro
 420 425 430

Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys
 435 440 445

Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu
 450 455 460

Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys
 465 470 475

<210> 173
 <211> 1419
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1419)

<400> 173
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 Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30
 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144
 Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
 35 40 45
 tac tgc ttc tac agt gag aac acg gat ctg act tgt cgg cag ccc aaa 192
 Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
 50 55 60
 tgt gac aag tgc aat gct gcc tat cct cac ctg gct cac ctg cca tct 240
 Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
 65 70 75 80
 gcc atg gca gac tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct 288
 Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
 85 90 95

gcg gag gat gtg cac aga gaa aag atc cag tta gac ctg gaa gct gaa	336
Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu	
100 105 110	
ttc tac ttc act cac cta att gtg atg ttc aag tcc ccc agg ccg gct	384
Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala	
115 120 125	
gcc atg gtg ctg gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct	432
Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro	
130 135 140	
tat aag tac ttt gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat	480
Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp	
145 150 155 160	
gat gtt gtc aag aag ggc gct att tgt act cct aaa tac tcc agt cct	528
Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro	
165 170 175	
ttt cca tgc act gga gga gag gtt att ttc aaa gct ttg tca cca cca	576
Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro	
180 185 190	
tac gat aca gag aac cct tac agt gcc aaa gtt cag gag cag ctg aag	624
Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys	
195 200 205	
atc acc aac ctt cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt	672
Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys	
210 215 220	
cag aga aat gac ctg aac gaa gag cct caa cat ttt aca cac tat gcg	720
Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala	
225 230 235 240	
atc tat gat ttc att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc	768
Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala	
245 250 255	
gat caa tgc ata cct gtt cat ggc ttc aga cct gtc aag gcc cca gga	816
Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly	
260 265 270	
aca ttc cac atg gtc cat ggg aag tgt atg tgt aag cac aac aca gca	864
Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala	
275 280 285	
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg	912
Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp	
290 295 300	
gag gca gct gat ccg tgt tcc tgc cat cca gta gga tca gct gtc ctt	960
Glu Ala Ala Asp Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu	
305 310 315 320	
cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac tgc cct	1008
Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro	
325 330 335	
tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg gtg gga	1056

Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	Cys	Met	Val	Gly		
			340					345					350				
tac	tgg	ggc	ttc	gga	gac	tat	ggc	gcc	aag	gca	ttc	tgt	gga	atg	aaa		1104
Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys		
		355					360					365					
tat	tca	tat	gtg	cta	aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggt		1152
Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly		
	370					375					380						
act	cat	gtt	gag	gtc	aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc		1200
Thr	His	Val	Glu	Val	Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr		
385					390					395					400		
aaa	ctg	aag	att	ttc	cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg		1248
Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp		
			405						410						415		
acg	gac	aga	gga	tgc	act	tgt	cca	atc	ctc	aat	cct	ggt	ttg	gaa	tac		1296
Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr		
			420					425					430				
ctt	gta	gca	gga	cat	gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat		1344
Leu	Val	Ala	Gly	His	Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn		
		435					440					445					
atg	aaa	agc	ttt	gtc	cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc		1392
Met	Lys	Ser	Phe	Val	Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val		
	450					455					460						
atg	gat	att	tta	aaa	aga	gag	tgc	aag									1419
Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	Lys									
465					470												

<210> 174
 <211> 473
 <212> PRT
 <213> Homo sapiens

<400> 174

Met	Gly	Ser	Cys	Ala	Arg	Leu	Leu	Leu	Leu	Trp	Gly	Cys	Thr	Val	Val		
1				5					10					15			
Ala	Ala	Gly	Lys	Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly		
			20					25					30				
Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu		
		35					40					45					
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys		
	50					55					60						
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser		
65				70						75					80		

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu
305 310 315 320

Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro
 325 330 335

Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly
 340 345 350

Tyr Trp Gly Phe Gly Asp Tyr Gly Ala Lys Ala Phe Cys Gly Met Lys
 355 360 365

Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly
 370 375 380

Thr His Val Glu Val Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr
 385 390 395 400

Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp
 405 410 415

Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr
 420 425 430

Leu Val Ala Gly His Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn
 435 440 445

Met Lys Ser Phe Val Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val
 450 455 460

Met Asp Ile Leu Lys Arg Glu Cys Lys
 465 470

<210> 175
 <211> 1587
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1587)

<400> 175
 atg ggg agc tgc gcg cgg ctg ctg ctg ctc tgg ggc tgc acg gtg gtg 48
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 gcc gca gga aaa gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg 96
 Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
 20 25 30
 cga aaa ctc tgg gca gac acc acc tgc ggt cag aat gct acc gaa ctg 144

Arg	Lys	Leu	Trp	Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	
		35					40					45				
tac	tgc	ttc	tac	agt	gag	aac	acg	gat	ctg	act	tgt	cgg	cag	ccc	aaa	192
Tyr	Cys	Phe	Tyr	Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	
	50					55					60					
tgt	gac	aag	tgc	aat	gct	gcc	tat	cct	cac	ctg	gct	cac	ctg	cca	tct	240
Cys	Asp	Lys	Cys	Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	
65					70					75					80	
gcc	atg	gca	gac	tca	tcc	ttc	cgg	ttt	cct	cgc	aca	tgg	tgg	cag	tct	288
Ala	Met	Ala	Asp	Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	
				85					90					95		
gcg	gag	gat	gtg	cac	aga	gaa	aag	atc	cag	tta	gac	ctg	gaa	gct	gaa	336
Ala	Glu	Asp	Val	His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	
			100					105					110			
ttc	tac	ttc	act	cac	cta	att	gtg	atg	ttc	aag	tcc	ccc	agg	ccg	gct	384
Phe	Tyr	Phe	Thr	His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	
		115					120					125				
gcc	atg	gtg	ctg	gac	cgc	tcc	cag	gac	ttt	ggg	aaa	aca	tgg	aag	cct	432
Ala	Met	Val	Leu	Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	
	130					135					140					
tat	aag	tac	ttt	gcg	act	aac	tgc	tcc	gct	aca	ttt	ggc	ctg	gaa	gat	480
Tyr	Lys	Tyr	Phe	Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	
145					150					155					160	
gat	gtt	gtc	aag	aag	ggc	gct	att	tgt	act	cct	aaa	tac	tcc	agt	cct	528
Asp	Val	Val	Lys	Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	
				165					170					175		
ttt	cca	tgc	act	gga	gga	gag	gtt	att	ttc	aaa	gct	ttg	tca	cca	cca	576
Phe	Pro	Cys	Thr	Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	
			180					185					190			
tac	gat	aca	gag	aac	cct	tac	agt	gcc	aaa	gtt	cag	gag	cag	ctg	aag	624
Tyr	Asp	Thr	Glu	Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	
		195					200					205				
atc	acc	aac	ctt	cgc	gtg	cag	ctg	ctg	aaa	cga	cag	tct	tat	ccc	tgt	672
Ile	Thr	Asn	Leu	Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	
	210					215					220					
cag	aga	aat	gac	ctg	aac	gaa	gag	cct	caa	cat	ttt	aca	cac	tat	gcg	720
Gln	Arg	Asn	Asp	Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	
225					230					235					240	
atc	tat	gat	ttc	att	gtc	aag	ggc	agc	tgc	ttc	tgc	aat	ggc	cac	gcc	768
Ile	Tyr	Asp	Phe	Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	
				245					250					255		
gat	caa	tgc	ata	cct	gtt	cat	ggc	ttc	aga	cct	gtc	aag	gcc	cca	gga	816
Asp	Gln	Cys	Ile	Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	
			260					265					270			
aca	ttc	cac	atg	gtc	cat	ggg	aag	tgt	atg	tgt	aag	cac	aac	aca	gca	864
Thr	Phe	His	Met	Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	

275	280	285	
ggc agc cac tgc cag cac tgt gcc ccg tta tac aat gac cgg cca tgg Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp 290 295 300			912
gag gca gct gat cgc aag tgt aat ggg cat gct gat acc tgt cac ttc Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe 305 310 315 320			960
gac gtt aat gtg tgg gag gca tca ggg agt cgt agt ggt ggt gtc tgt Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys 325 330 335			1008
gat gac tgt cag cac aac aca gaa gga cag tat tgc cag agg tgc aag Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys 340 345 350			1056
cca ggc ttc tat cgt gac ctg ccg aga ccc ttc tca ccg tgt tcc tgc Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys 355 360 365			1104
cat cca gta gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys 370 375 380			1152
gac ccc agc aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg 385 390 395 400			1200
cgt tgt gac agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly 405 410 415			1248
gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta aaa ata aag Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys 420 425 430			1296
att tta tca gct cat gat aaa ggt act cat gtt gag gtc aat gtg aag Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys 435 440 445			1344
att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc cga gga aag Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys 450 455 460			1392
cga aca tta tat cca gaa tca tgg acg gac aga gga tgc act tgt cca Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro 465 470 475 480			1440
atc ctc aat cct ggt ttg gaa tac ctt gta gca gga cat gag gat ata Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile 485 490 495			1488
aga aca ggc aaa cta att gtg aat atg aaa agc ttt gtc cag cac tgg Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp 500 505 510			1536
aaa cct tct ctt gga aga aaa gtc atg gat att tta aaa aga gag tgc Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys 515 520 525			1584

aag
Lys

1587

<210> 176
<211> 529
<212> PRT
<213> Homo sapiens

<400> 176

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Lys Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly
20 25 30

Arg Lys Leu Trp Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu
35 40 45

Tyr Cys Phe Tyr Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys
50 55 60

Cys Asp Lys Cys Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser
65 70 75 80

Ala Met Ala Asp Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser
85 90 95

Ala Glu Asp Val His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu
100 105 110

Phe Tyr Phe Thr His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala
115 120 125

Ala Met Val Leu Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro
130 135 140

Tyr Lys Tyr Phe Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp
145 150 155 160

Asp Val Val Lys Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro
165 170 175

Phe Pro Cys Thr Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro
180 185 190

Tyr Asp Thr Glu Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys
195 200 205

Ile Thr Asn Leu Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys
210 215 220

Gln Arg Asn Asp Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala
225 230 235 240

Ile Tyr Asp Phe Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala
245 250 255

Asp Gln Cys Ile Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly
260 265 270

Thr Phe His Met Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala
275 280 285

Gly Ser His Cys Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp
290 295 300

Glu Ala Ala Asp Arg Lys Cys Asn Gly His Ala Asp Thr Cys His Phe
305 310 315 320

Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser Gly Gly Val Cys
325 330 335

Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg Cys Lys
340 345 350

Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Pro Cys Ser Cys
355 360 365

His Pro Val Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys
370 375 380

Asp Pro Ser Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg
385 390 395 400

Arg Cys Asp Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly
405 410 415

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
420 425 430

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys

435

440

445

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
 450 455 460

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
 465 470 475 480

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile
 485 490 495

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
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Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys
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Lys

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 gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
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 gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 agt gag aac aag gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
 Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
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cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
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gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act tct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca cac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu	
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aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
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cgc gtg cag ctg ctg aaa cga cag tct tgt ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
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cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gat	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
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ggc aaa acg ggg gct ccc aac gag tgc aga gcc tgc aag tgt aat ggg	1008
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly	
325 330 335	

cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg	1056
His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly	
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aat cgt agt ggt ggt gtc tgt gat gac tgt cag cac aac aca gaa gga	1104
Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly	
355 360 365	
cag tat tgc cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga	1152
Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg	
370 375 380	
ccc ttc tca gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta	1200
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val	
385 390 395 400	
gga tca gct gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc	1248
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser	
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aat ggt gac tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac	1296
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp	
420 425 430	
agg tgc atg gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca	1344
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro	
435 440 445	
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Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser	
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agc cac aca gac ata gac tgg tgt cat gaa gtt cct gac ttc cgt ccc	1440
Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro	
465 470 475 480	
gtg cac aat aag agc gaa cca gcc tgg gag tgg gag gat gcg cag ggg	1488
Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly	
485 490 495	
ttt tct gca ctt cta cac tca ggt aaa tgc gaa tgt aag gaa cag aca	1536
Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr	
500 505 510	
tta gga aat gcc aag gca ttc tgt gga atg aaa tat tca tat gtg cta	1584
Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu	
515 520 525	
aaa ata aag att tta tca gct cat gat aaa ggt act cat gtt gag gtc	1632
Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val	
530 535 540	
aat gtg aag att aaa aag gtc tta aaa tct acc aaa ctg aag att ttc	1680
Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe	
545 550 555 560	
cga gga aag cga aca tta tat cca gaa tca tgg acg gac aga gga tgc	1728
Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys	
565 570 575	
act tgt cca atc ctc aat cct ggt ttg gaa tac ctt gta gca gga cat	1776

Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	
			580					585					590			
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Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	
		595					600					605				
cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	1872
Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	
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Arg	Glu	Cys	Lys													
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			20					25					30			
Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	
		35					40					45				
Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	
	50					55					60					
Ser	Glu	Asn	Lys	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys	
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Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp	
				85					90					95		
Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val	
			100					105					110			
His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr	
		115					120					125				
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu	
	130					135					140					
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe	
145					150					155					160	

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

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545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
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 Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr
 20 25 30
 acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac 144
 Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
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 Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
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 Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
 65 70 75 80
 cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa 288
 Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
 85 90 95
 aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att 336
 Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
 100 105 110
 gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc 384
 Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
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 Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
 130 135 140
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 Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
 145 150 155 160
 att tgt act tct aaa tac tcc agt cct ttt cca tgc act gga gga gag 528
 Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
 165 170 175
 gtt att ttc aaa gct ttg tca cca cca cac gat aca gag aac cct tac 576
 Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu Asn Pro Tyr
 180 185 190
 agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag 624
 Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln

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Leu	Leu	Lys	Arg	Gln	Ser	Cys	Pro	Cys	Gln	Arg	Asn	Asp	Leu	Asn	Glu	
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Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe	Ile	Val	Lys	
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Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile	Pro	Val	His	
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Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met	Val	His	Gly	
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aag	tgt	atg	tgt	aag	cac	aac	aca	gca	ggc	agc	cac	tgc	cag	cac	tgt	864
Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys	Gln	His	Cys	
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Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp	Gly	Lys	Thr	
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ggg	gct	ccc	aac	gag	tgc	aga	gcc	tgc	aag	tgt	aat	ggg	cat	gct	gat	960
Gly	Ala	Pro	Asn	Glu	Cys	Arg	Ala	Cys	Lys	Cys	Asn	Gly	His	Ala	Asp	
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acc	tgt	cac	ttc	gac	gtt	aat	gtg	tgg	gag	gca	tca	ggg	aat	cgt	agt	1008
Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly	Asn	Arg	Ser	
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Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly	Gln	Tyr	Cys	
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Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg	Pro	Phe	Ser	
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gct	cca	gat	gct	tgc	aaa	ccg	tgt	tcc	tgc	cat	cca	gta	gga	tca	gct	1152
Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	Cys	His	Pro	Val	Gly	Ser	Ala	
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Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser	Asn	Gly	Asp	
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tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	agg	tgc	atg	1248
Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp	Arg	Cys	Met	
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gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	tgt	cga	cca	tgt	gac	tgt	1296
Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Cys	Arg	Pro	Cys	Asp	Cys	
			420					425					430			
gcg	ggg	agc	tgt	gac	cct	atc	acc	gga	gac	tgc	atc	agc	agc	cac	aca	1344
Ala	Gly	Ser	Cys	Asp	Pro	Ile	Thr	Gly	Asp	Cys	Ile	Ser	Ser	His	Thr	
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Asp	Ile	Asp	Trp	Cys	His	Glu	Val	Pro	Asp	Phe	Arg	Pro	Val	His	Asn	
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Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly	Phe	Ser	Ala	
465					470					475					480	
ctt	cta	cac	tca	ggt	aaa	tgc	gaa	tgt	aag	gaa	cag	aca	tta	gga	aat	1488
Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr	Leu	Gly	Asn	
				485					490					495		
gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	1536
Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	
			500					505					510			
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Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	
		515					520					525				
att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	1632
Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	
		530				535					540					
cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	1680
Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	
545					550					555					560	
atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	1728
Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile	
				565					570					575		
aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1776
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	
			580					585					590			
aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	1824
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	
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aag	tag															1830
Lys																

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<400> 180

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			20					25					30		

Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn
35 40 45

Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60

Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys

275		280		285
Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr	290	295	300	
Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly His Ala Asp	305	310	315	320
Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Asn Arg Ser	325	330	335	
Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys	340	345	350	
Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser	355	360	365	
Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala	370	375	380	
Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp	385	390	395	400
Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met	405	410	415	
Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys	420	425	430	
Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr	435	440	445	
Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro Val His Asn	450	455	460	
Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala	465	470	475	480
Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Asn	485	490	495	
Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys	500	505	510	
Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys	515	520	525	

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
530 535 540

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
545 550 555 560

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile
565 570 575

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
580 585 590

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys
595 600 605

Lys

<210> 181
<211> 1884
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
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gcc gca gga ctg agt gga gta gct gga gtg agt tcc cgc tgt gaa aaa 96
Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30
gcc tgc aac cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg 144
Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45
gca gac acc acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac 192
Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60
agt gag aac acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc 240
Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80
aat gct gcc tat cct cac ctg gct cac ctg cca tct gcc atg gca gac 288
Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

tca tcc ttc cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg	336
Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val	
100 105 110	
cac aga gaa aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act	384
His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr	
115 120 125	
cac cta att gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg	432
His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu	
130 135 140	
gac cgc tcc cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt	480
Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe	
145 150 155 160	
gcg act aac tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag	528
Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys	
165 170 175	
aag ggc gct att tgt act cct aaa tac tcc agt cct ttt cca tgc act	576
Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr	
180 185 190	
gga gga gag gtt att ttc aaa gct ttg tca cca cca tac gat aca gag	624
Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu	
195 200 205	
aac cct tac agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt	672
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu	
210 215 220	
cgc gtg cag ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac	720
Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp	
225 230 235 240	
ctg aac gaa gag cct caa cat ttt aca cac tat gcg atc tat gat ttc	768
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe	
245 250 255	
att gtc aag ggc agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata	816
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile	
260 265 270	
cct gtt cat ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg	864
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met	
275 280 285	
gtc cat ggg aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc	912
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys	
290 295 300	
cag cac tgt gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac	960
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp	
305 310 315 320	
ggc aaa acg ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg	1008
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly	
325 330 335	
cat gct gat acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg	1056

His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly		
			340					345					350				
agt	cgt	agt	ggg	ggg	gtc	tgt	gat	gac	tgt	cag	cac	aac	aca	gaa	gga	1104	
Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly		
		355					360					365					
cag	tat	tgc	cag	agg	tgc	aag	cca	ggc	ttc	tat	cgt	gac	ctg	cgg	aga	1152	
Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg		
	370					375					380						
ccc	ttc	tca	gct	cca	gat	gct	tgc	aaa	ccg	tgt	tcc	tgc	cat	cca	gta	1200	
Pro	Phe	Ser	Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	Cys	His	Pro	Val		
385					390					395					400		
gga	tca	gct	gtc	ctt	cct	gcc	aac	tca	gtg	acc	ttc	tgc	gac	ccc	agc	1248	
Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser		
				405					410					415			
aat	ggg	gac	tgc	cct	tgc	aag	cct	ggg	gtg	gca	ggg	cga	cgt	tgt	gac	1296	
Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp		
			420					425					430				
agg	tgc	atg	gtg	gga	tac	tgg	ggc	ttc	gga	gac	tat	ggc	tgt	cga	cca	1344	
Arg	Cys	Met	Val	Gly	Tyr	Trp	Gly	Phe	Gly	Asp	Tyr	Gly	Cys	Arg	Pro		
		435					440					445					
tgt	gac	tgt	gcg	ggg	agc	tgt	gac	cct	atc	acc	gga	gac	tgc	atc	agc	1392	
Cys	Asp	Cys	Ala	Gly	Ser	Cys	Asp	Pro	Ile	Thr	Gly	Asp	Cys	Ile	Ser		
	450					455					460						
agc	cac	aca	gac	ata	gac	tgg	tgt	cat	gaa	gtt	cct	gac	ttc	cgt	ccc	1440	
Ser	His	Thr	Asp	Ile	Asp	Trp	Cys	His	Glu	Val	Pro	Asp	Phe	Arg	Pro		
465					470					475					480		
gtg	cac	aat	aag	agc	gaa	cca	gcc	tgg	gag	tgg	gag	gat	gcg	cag	ggg	1488	
Val	His	Asn	Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly		
				485				490						495			
ttt	tct	gca	ctt	cta	cac	tca	ggg	aaa	tgc	gaa	tgt	aag	gaa	cag	aca	1536	
Phe	Ser	Ala	Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr		
			500					505					510				
tta	gga	aag	gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	1584	
Leu	Gly	Lys	Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu		
		515					520					525					
aaa	ata	aag	att	tta	tca	gct	cat	gat	aaa	ggg	act	cat	gtt	gag	gtc	1632	
Lys	Ile	Lys	Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val		
	530					535					540						
aat	gtg	aag	att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	1680	
Asn	Val	Lys	Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe		
545					550					555					560		
cga	gga	aag	cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	1728	
Arg	Gly	Lys	Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys		
				565				570						575			
act	tgt	cca	atc	ctc	aat	cct	ggg	ttg	gaa	tac	ctt	gta	gca	gga	cat	1776	
Thr	Cys	Pro	Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His		

580										585					590					
gag	gat	ata	aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	1824				
Glu	Asp	Ile	Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val					
595						600					605									
cag	cac	tgg	aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	1872				
Gln	His	Trp	Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys					
610			615				620													
aga	gag	tgc	aag												1884					
Arg	Glu	Cys	Lys																	
625																				

<210> 182
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 182

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			20					25					30		

Ala	Cys	Asn	Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp
		35					40					45			

Ala	Asp	Thr	Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr
	50					55					60				

Ser	Glu	Asn	Thr	Asp	Leu	Thr	Cys	Arg	Gln	Pro	Lys	Cys	Asp	Lys	Cys
65					70					75					80

Asn	Ala	Ala	Tyr	Pro	His	Leu	Ala	His	Leu	Pro	Ser	Ala	Met	Ala	Asp
				85					90					95	

Ser	Ser	Phe	Arg	Phe	Pro	Arg	Thr	Trp	Trp	Gln	Ser	Ala	Glu	Asp	Val
			100					105					110		

His	Arg	Glu	Lys	Ile	Gln	Leu	Asp	Leu	Glu	Ala	Glu	Phe	Tyr	Phe	Thr
		115					120					125			

His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu
	130					135					140				

Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe
145					150					155					160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
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Arg Glu Cys Lys
625

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 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(1827)

<400> 183

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cct cgg atg gga aat ttg gct ttg ggg cga aaa ctc tgg gca gac acc	96
Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp Ala Asp Thr	
20 25 30	
acc tgc ggt cag aat gct acc gaa ctg tac tgc ttc tac agt gag aac	144
Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr Ser Glu Asn	
35 40 45	
acg gat ctg act tgt cgg cag ccc aaa tgt gac aag tgc aat gct gcc	192
Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala	
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tat cct cac ctg gct cac ctg cca tct gcc atg gca gac tca tcc ttc	240
Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe	
65 70 75 80	
cgg ttt cct cgc aca tgg tgg cag tct gcg gag gat gtg cac aga gaa	288
Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu	
85 90 95	
aag atc cag tta gac ctg gaa gct gaa ttc tac ttc act cac cta att	336
Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile	
100 105 110	
gtg atg ttc aag tcc ccc agg ccg gct gcc atg gtg ctg gac cgc tcc	384
Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser	
115 120 125	
cag gac ttt ggg aaa aca tgg aag cct tat aag tac ttt gcg act aac	432
Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn	
130 135 140	
tgc tcc gct aca ttt ggc ctg gaa gat gat gtt gtc aag aag ggc gct	480
Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala	
145 150 155 160	
att tgt act cct aaa tac tcc agt cct ttt cca tgc act gga gga gag	528
Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu	
165 170 175	
gtt att ttc aaa gct ttg tca cca cca tac gat aca gag aac cct tac	576
Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr	
180 185 190	
agt gcc aaa gtt cag gag cag ctg aag atc acc aac ctt cgc gtg cag	624
Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln	
195 200 205	

ctg ctg aaa cga cag tct tat ccc tgt cag aga aat gac ctg aac gaa	672
Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu	
210 215 220	
gag cct caa cat ttt aca cac tat gcg atc tat gat ttc att gtc aag	720
Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys	
225 230 235 240	
ggc agc tgc ttc tgc aat ggc cac gcc gat caa tgc ata cct gtt cat	768
Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His	
245 250 255	
ggc ttc aga cct gtc aag gcc cca gga aca ttc cac atg gtc cat ggg	816
Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly	
260 265 270	
aag tgt atg tgt aag cac aac aca gca ggc agc cac tgc cag cac tgt	864
Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys	
275 280 285	
gcc ccg tta tac aat gac cgg cca tgg gag gca gct gac ggc aaa acg	912
Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr	
290 295 300	
ggg gct ccc aac gag tgc aga acc cgc aag tgt aat ggg cat gct gat	960
Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp	
305 310 315 320	
acc tgt cac ttc gac gtt aat gtg tgg gag gca tca ggg agt cgt agt	1008
Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser	
325 330 335	
ggg ggt gtc tgt gat gac tgt cag cac aac aca gaa gga cag tat tgc	1056
Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys	
340 345 350	
cag agg tgc aag cca ggc ttc tat cgt gac ctg cgg aga ccc ttc tca	1104
Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Pro Phe Ser	
355 360 365	
gct cca gat gct tgc aaa ccg tgt tcc tgc cat cca gta gga tca gct	1152
Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala	
370 375 380	
gtc ctt cct gcc aac tca gtg acc ttc tgc gac ccc agc aat ggt gac	1200
Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp	
385 390 395 400	
tgc cct tgc aag cct ggg gtg gca ggg cga cgt tgt gac agg tgc atg	1248
Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met	
405 410 415	
gtg gga tac tgg ggc ttc gga gac tat ggc tgt cga cca tgt gac tgt	1296
Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys	
420 425 430	
gcg ggg agc tgt gac cct atc acc gga gac tgc atc agc agc cac aca	1344
Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr	
435 440 445	

gac	ata	gac	tgg	tgt	cat	gaa	gtt	cct	gac	ttc	cgt	ccc	gtg	cac	aat	1392
Asp	Ile	Asp	Trp	Cys	His	Glu	Val	Pro	Asp	Phe	Arg	Pro	Val	His	Asn	
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aag	agc	gaa	cca	gcc	tgg	gag	tgg	gag	gat	gcg	cag	ggg	ttt	tct	gca	1440
Lys	Ser	Glu	Pro	Ala	Trp	Glu	Trp	Glu	Asp	Ala	Gln	Gly	Phe	Ser	Ala	
465					470					475					480	
ctt	cta	cac	tca	ggt	aaa	tgc	gaa	tgt	aag	gaa	cag	aca	tta	gga	aag	1488
Leu	Leu	His	Ser	Gly	Lys	Cys	Glu	Cys	Lys	Glu	Gln	Thr	Leu	Gly	Lys	
				485					490					495		
gcc	aag	gca	ttc	tgt	gga	atg	aaa	tat	tca	tat	gtg	cta	aaa	ata	aag	1536
Ala	Lys	Ala	Phe	Cys	Gly	Met	Lys	Tyr	Ser	Tyr	Val	Leu	Lys	Ile	Lys	
			500					505					510			
att	tta	tca	gct	cat	gat	aaa	ggt	act	cat	gtt	gag	gtc	aat	gtg	aag	1584
Ile	Leu	Ser	Ala	His	Asp	Lys	Gly	Thr	His	Val	Glu	Val	Asn	Val	Lys	
		515					520					525				
att	aaa	aag	gtc	tta	aaa	tct	acc	aaa	ctg	aag	att	ttc	cga	gga	aag	1632
Ile	Lys	Lys	Val	Leu	Lys	Ser	Thr	Lys	Leu	Lys	Ile	Phe	Arg	Gly	Lys	
	530					535					540					
cga	aca	tta	tat	cca	gaa	tca	tgg	acg	gac	aga	gga	tgc	act	tgt	cca	1680
Arg	Thr	Leu	Tyr	Pro	Glu	Ser	Trp	Thr	Asp	Arg	Gly	Cys	Thr	Cys	Pro	
545					550					555					560	
atc	ctc	aat	cct	ggt	ttg	gaa	tac	ctt	gta	gca	gga	cat	gag	gat	ata	1728
Ile	Leu	Asn	Pro	Gly	Leu	Glu	Tyr	Leu	Val	Ala	Gly	His	Glu	Asp	Ile	
				565					570					575		
aga	aca	ggc	aaa	cta	att	gtg	aat	atg	aaa	agc	ttt	gtc	cag	cac	tgg	1776
Arg	Thr	Gly	Lys	Leu	Ile	Val	Asn	Met	Lys	Ser	Phe	Val	Gln	His	Trp	
			580					585					590			
aaa	cct	tct	ctt	gga	aga	aaa	gtc	atg	gat	att	tta	aaa	aga	gag	tgc	1824
Lys	Pro	Ser	Leu	Gly	Arg	Lys	Val	Met	Asp	Ile	Leu	Lys	Arg	Glu	Cys	
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aag																1827
Lys																

<210> 184
 <211> 609
 <212> PRT
 <213> Homo sapiens

 <400> 184

Leu	Ser	Gly	Val	Ala	Gly	Val	Ser	Ser	Arg	Cys	Glu	Lys	Ala	Cys	Asn
1				5					10					15	

Pro	Arg	Met	Gly	Asn	Leu	Ala	Leu	Gly	Arg	Lys	Leu	Trp	Ala	Asp	Thr
			20					25					30		

Thr	Cys	Gly	Gln	Asn	Ala	Thr	Glu	Leu	Tyr	Cys	Phe	Tyr	Ser	Glu	Asn
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35

40

45

Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys Asn Ala Ala
50 55 60

Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp Ser Ser Phe
65 70 75 80

Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val His Arg Glu
85 90 95

Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr His Leu Ile
100 105 110

Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu Asp Arg Ser
115 120 125

Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe Ala Thr Asn
130 135 140

Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys Lys Gly Ala
145 150 155 160

Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr Gly Gly Glu
165 170 175

Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu Asn Pro Tyr
180 185 190

Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu Arg Val Gln
195 200 205

Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp Leu Asn Glu
210 215 220

Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe Ile Val Lys
225 230 235 240

Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile Pro Val His
245 250 255

Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met Val His Gly
260 265 270

Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys Gln His Cys
275 280 285

Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp Gly Lys Thr
290 295 300

Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly His Ala Asp
305 310 315 320

Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Ser Arg Ser
325 330 335

Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys
340 345 350

Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser
355 360 365

Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala
370 375 380

Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp
385 390 395 400

Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met
405 410 415

Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys
420 425 430

Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr
435 440 445

Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro Val His Asn
450 455 460

Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala
465 470 475 480

Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Lys
485 490 495

Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys
500 505 510

Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys
515 520 525

Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys
530 535 540

Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro
545 550 555 560

Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile
565 570 575

Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp
580 585 590

Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys
595 600 605

Lys

<210> 185
<211> 628
<212> PRT
<213> Homo sapiens

<400> 185

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr

115							120								125
His	Leu	Ile	Val	Met	Phe	Lys	Ser	Pro	Arg	Pro	Ala	Ala	Met	Val	Leu
130						135					140				
Asp	Arg	Ser	Gln	Asp	Phe	Gly	Lys	Thr	Trp	Lys	Pro	Tyr	Lys	Tyr	Phe
145					150					155					160
Ala	Thr	Asn	Cys	Ser	Ala	Thr	Phe	Gly	Leu	Glu	Asp	Asp	Val	Val	Lys
				165					170					175	
Lys	Gly	Ala	Ile	Cys	Thr	Pro	Lys	Tyr	Ser	Ser	Pro	Phe	Pro	Cys	Thr
			180					185					190		
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu
		195					200					205			
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu
	210					215					220				
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp
225					230					235					240
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe
				245					250					255	
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile
			260					265					270		
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met
		275					280					285			
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys
	290					295					300				
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp
305					310					315					320
Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Thr	Arg	Lys	Cys	Asn	Gly
				325					330					335	
His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly
			340					345					350		
Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly
		355					360					365			

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Glu Ser Ala Ser
625

<210> 186
<211> 628
<212> PRT
<213> Homo sapiens

<400> 186

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr

180	185	190															
Gly	Gly	Glu	Val	Ile	Phe	Lys	Ala	Leu	Ser	Pro	Pro	Tyr	Asp	Thr	Glu		
	195						200					205					
Asn	Pro	Tyr	Ser	Ala	Lys	Val	Gln	Glu	Gln	Leu	Lys	Ile	Thr	Asn	Leu		
	210					215					220						
Arg	Val	Gln	Leu	Leu	Lys	Arg	Gln	Ser	Tyr	Pro	Cys	Gln	Arg	Asn	Asp		
225					230					235					240		
Leu	Asn	Glu	Glu	Pro	Gln	His	Phe	Thr	His	Tyr	Ala	Ile	Tyr	Asp	Phe		
				245					250					255			
Ile	Val	Lys	Gly	Ser	Cys	Phe	Cys	Asn	Gly	His	Ala	Asp	Gln	Cys	Ile		
			260					265					270				
Pro	Val	His	Gly	Phe	Arg	Pro	Val	Lys	Ala	Pro	Gly	Thr	Phe	His	Met		
		275					280					285					
Val	His	Gly	Lys	Cys	Met	Cys	Lys	His	Asn	Thr	Ala	Gly	Ser	His	Cys		
	290					295					300						
Gln	His	Cys	Ala	Pro	Leu	Tyr	Asn	Asp	Arg	Pro	Trp	Glu	Ala	Ala	Asp		
305					310					315					320		
Gly	Lys	Thr	Gly	Ala	Pro	Asn	Glu	Cys	Arg	Ala	Arg	Lys	Cys	Asn	Gly		
				325					330					335			
His	Ala	Asp	Thr	Cys	His	Phe	Asp	Val	Asn	Val	Trp	Glu	Ala	Ser	Gly		
			340					345					350				
Ser	Arg	Ser	Gly	Gly	Val	Cys	Asp	Asp	Cys	Gln	His	Asn	Thr	Glu	Gly		
		355					360					365					
Gln	Tyr	Cys	Gln	Arg	Cys	Lys	Pro	Gly	Phe	Tyr	Arg	Asp	Leu	Arg	Arg		
	370					375					380						
Pro	Phe	Ser	Ala	Pro	Asp	Ala	Cys	Lys	Pro	Cys	Ser	Cys	His	Pro	Val		
385					390					395					400		
Gly	Ser	Ala	Val	Leu	Pro	Ala	Asn	Ser	Val	Thr	Phe	Cys	Asp	Pro	Ser		
				405					410					415			
Asn	Gly	Asp	Cys	Pro	Cys	Lys	Pro	Gly	Val	Ala	Gly	Arg	Arg	Cys	Asp		
			420					425					430				

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Glu Ser Ala Ser
625

<210> 187
<211> 628
<212> PRT
<213> Homo sapiens

<400> 187

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe

				245				250				255			
Ile	Val	Lys	Gly 260	Ser	Cys	Phe	Cys	Asn 265	Gly	His	Ala	Asp	Gln 270	Cys	Ile
Pro	Val	His 275	Gly	Phe	Arg	Pro	Val 280	Lys	Ala	Pro	Gly	Thr 285	Phe	His	Met
Val	His 290	Gly	Lys	Cys	Met	Cys 295	Lys	His	Asn	Thr	Ala 300	Gly	Ser	His	Cys
Gln 305	His	Cys	Ala	Pro	Leu 310	Tyr	Asn	Asp	Arg	Pro 315	Trp	Glu	Ala	Ala	Asp 320
Gly	Lys	Thr	Gly	Ala 325	Pro	Asn	Glu	Cys	Arg 330	Thr	Cys	Lys	Cys	Asn 335	Gly
His	Ala	Asp	Thr 340	Cys	His	Phe	Asp	Val 345	Asn	Val	Trp	Glu	Ala 350	Ser	Gly
Ser	Arg	Ser 355	Gly	Gly	Val	Cys	Asp 360	Asp	Cys	Gln	His	Asn 365	Thr	Glu	Gly
Gln 370	Tyr	Cys	Gln	Arg	Cys	Lys 375	Pro	Gly	Phe	Tyr	Arg 380	Asp	Leu	Arg	Arg
Pro 385	Phe	Ser	Ala	Pro	Asp 390	Ala	Cys	Lys	Pro	Cys 395	Ser	Cys	His	Pro	Val 400
Gly	Ser	Ala	Val	Leu 405	Pro	Ala	Asn	Ser	Val 410	Thr	Phe	Cys	Asp	Pro 415	Ser
Asn	Gly	Asp	Cys 420	Pro	Cys	Lys	Pro	Gly 425	Val	Ala	Gly	Arg	Arg 430	Cys	Asp
Arg	Cys	Met 435	Val	Gly	Tyr	Trp	Gly 440	Phe	Gly	Asp	Tyr	Gly 445	Cys	Arg	Pro
Cys	Asp 450	Cys	Ala	Gly	Ser	Cys 455	Asp	Pro	Ile	Thr	Gly 460	Asp	Cys	Ile	Ser
Ser 465	His	Thr	Asp	Ile	Asp 470	Trp	Tyr	His	Glu	Val 475	Pro	Asp	Phe	Arg	Pro 480
Val	His	Asn	Lys	Ser 485	Glu	Pro	Ala	Trp	Glu 490	Trp	Glu	Asp	Ala	Gln 495	Gly

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Glu Ser Ala Ser
625

<210> 188
<211> 628
<212> PRT
<213> Homo sapiens

<400> 188

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp

305		310		315		320
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly						
	325			330		335
His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly						
	340			345		350
Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly						
	355			360		365
Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg						
	370			375		380
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val						
	385			390		400
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser						
	405			410		415
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp						
	420			425		430
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro						
	435			440		445
Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser						
	450			455		460
Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro						
	465			470		475
Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly						
	485			490		495
Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr						
	500			505		510
Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu						
	515			520		525
Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val						
	530			535		540
Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe						
	545			550		555
						560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Glu Ser Ala Ser
625

<210> 189
<211> 628
<212> PRT
<213> Homo sapiens

<400> 189

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg

370

375

380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
 385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
 405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
 420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
 435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
 450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
 465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
 485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
 500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
 515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
 530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
 545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
 565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Ala Ala Gly His
 580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
 595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
 610 615 620

Glu Ser Ala Ser
625

<210> 190
<211> 628
<212> PRT
<213> Homo sapiens

<400> 190

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro

435

440

445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
 450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
 465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
 485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
 500 505 510

Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
 515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
 530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
 545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
 565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
 580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
 595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
 610 615 620

Glu Ser Ala Ser
 625

<210> 191
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 191

Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Pro Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro Tyr Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Tyr Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Thr Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr

500 505 510
 Leu Gly Lys Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
 515 520 525
 Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
 530 535 540
 Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
 545 550 555 560
 Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
 565 570 575
 Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
 580 585 590
 Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
 595 600 605
 Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
 610 615 620
 Arg Glu Cys Lys
 625
 <210> 192
 <211> 628
 <212> PRT
 <213> Homo sapiens
 <400> 192
 Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15
 Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30
 Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
 130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
 145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
 165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
 180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
 195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
 210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
 225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
 245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
 260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
 275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
 290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
 305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys

565

570

575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

<210> 193
<211> 515
<212> PRT
<213> Homo sapiens

<400> 193

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn
515

<210> 194
<211> 628
<212> PRT
<213> Homo sapiens

<400> 194

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

<210> 195
<211> 515
<212> PRT
<213> Homo sapiens

<400> 195

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn
515

<210> 196
<211> 628
<212> PRT
<213> Homo sapiens

<400> 196

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys

65					70				75				80			
Asn	Ala	Ala	Tyr	Pro 85	His	Leu	Ala	His	Leu 90	Pro	Ser	Ala	Met	Ala 95	Asp	
Ser	Ser	Phe	Arg 100	Phe	Pro	Arg	Thr	Trp 105	Trp	Gln	Ser	Ala	Glu 110	Asp	Val	
His	Arg	Glu 115	Lys	Ile	Gln	Leu	Asp 120	Leu	Glu	Ala	Glu	Phe 125	Tyr	Phe	Thr	
His	Leu 130	Ile	Val	Met	Phe	Lys 135	Ser	Pro	Arg	Pro	Ala 140	Ala	Met	Val	Leu	
Asp 145	Arg	Ser	Gln	Asp	Phe 150	Gly	Lys	Thr	Trp	Lys 155	Pro	Tyr	Lys	Tyr	Phe 160	
Ala	Thr	Asn	Cys	Ser 165	Ala	Thr	Phe	Gly	Leu 170	Glu	Asp	Asp	Val	Val 175	Lys	
Lys	Gly	Ala	Ile 180	Cys	Thr	Ser	Lys	Tyr 185	Ser	Ser	Pro	Phe	Pro 190	Cys	Thr	
Gly	Gly	Glu 195	Val	Ile	Phe	Lys	Ala 200	Leu	Ser	Pro	Pro	His 205	Asp	Thr	Glu	
Asn	Pro 210	Tyr	Ser	Ala	Lys	Val 215	Gln	Glu	Gln	Leu	Lys 220	Ile	Thr	Asn	Leu	
Arg 225	Val	Gln	Leu	Leu	Lys 230	Arg	Gln	Ser	Cys	Pro 235	Cys	Gln	Arg	Asn	Asp 240	
Leu	Asn	Glu	Glu	Pro 245	Gln	His	Phe	Thr	His 250	Tyr	Ala	Ile	Tyr	Asp 255	Phe	
Ile	Val	Lys	Gly 260	Ser	Cys	Phe	Cys	Asn 265	Gly	His	Ala	Asp	Gln 270	Cys	Ile	
Pro	Val	His 275	Gly	Phe	Arg	Pro	Val 280	Lys	Ala	Pro	Gly	Thr 285	Phe	His	Met	
Val	His 290	Gly	Lys	Cys	Met	Cys 295	Lys	His	Asn	Thr	Ala 300	Gly	Ser	His	Cys	
Gln 305	His	Cys	Ala	Pro	Leu 310	Tyr	Asn	Asp	Arg	Pro 315	Trp	Glu	Ala	Ala	Asp 320	

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

<210> 197
<211> 515
<212> PRT
<213> Homo sapiens

<400> 197

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu

130

135

140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
 145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
 165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
 180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
 195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
 210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
 225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
 245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
 260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
 275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
 290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
 305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
 325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
 340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
 355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
 370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn
515

<210> 198
<211> 628
<212> PRT
<213> Homo sapiens

<400> 198

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp

305		310		315		320
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly						
	325			330		335
His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly						
	340			345		350
Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly						
	355			360		365
Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg						
	370			375		380
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val						
385		390		395		400
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser						
	405			410		415
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp						
	420			425		430
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro						
	435			440		445
Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser						
	450			455		460
Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro						
465		470		475		480
Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly						
	485			490		495
Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr						
	500			505		510
Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu						
	515			520		525
Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val						
	530			535		540
Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe						
545		550		555		560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

<210> 199
<211> 515
<212> PRT
<213> Homo sapiens

<400> 199

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg

370

375

380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
 385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
 405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
 420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
 435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
 450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
 465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
 485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
 500 505 510

Leu Gly Asn
 515

<210> 200
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 200

Met Gly Ser Cys Ala Arg Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
 20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
 35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe

545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

<210> 201
<211> 515
<212> PRT
<213> Homo sapiens

<400> 201

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn
515

<210> 202
<211> 628
<212> PRT
<213> Homo sapiens

<400> 202

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn Ala Lys Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu
515 520 525

Lys Ile Lys Ile Leu Ser Ala His Asp Lys Gly Thr His Val Glu Val
530 535 540

Asn Val Lys Ile Lys Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe
545 550 555 560

Arg Gly Lys Arg Thr Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys
565 570 575

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
580 585 590

Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
595 600 605

Gln His Trp Lys Pro Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys
610 615 620

Arg Glu Cys Lys
625

<210> 203
<211> 515
<212> PRT
<213> Homo sapiens

<400> 203

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp Phe Arg Pro
465 470 475 480

Val His Asn Lys Ser Glu Pro Ala Trp Glu Trp Glu Asp Ala Gln Gly
485 490 495

Phe Ser Ala Leu Leu His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr
500 505 510

Leu Gly Asn
515

<210> 204
<211> 477
<212> PRT
<213> Homo sapiens

<400> 204

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr

50

55

60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
 85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
 100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
 115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
 130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
 145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
 165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
 180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
 195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
 210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
 225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
 245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
 260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
 275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
 290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp
465 470 475

<210> 205
<211> 477
<212> PRT
<213> Homo sapiens

<400> 205

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met

275

280

285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
 290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
 305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
 325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
 340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
 355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
 370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
 385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
 405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
 420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
 435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
 450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp
 465 470 475

<210> 206

<211> 477

<212> PRT

<213> Homo sapiens

<400> 206

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
 1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Cys Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp
465 470 475

<210> 207
<211> 477
<212> PRT
<213> Homo sapiens

<400> 207

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Asn Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp
465 470 475

<210> 208
<211> 477
<212> PRT
<213> Homo sapiens

<400> 208

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu
195 200 205

Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu
210 215 220

Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp
225 230 235 240

Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe
245 250 255

Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile
260 265 270

Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met
275 280 285

Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys
290 295 300

Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp
305 310 315 320

Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly
325 330 335

His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly
340 345 350

Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly
355 360 365

Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg
370 375 380

Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val
385 390 395 400

Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser
405 410 415

Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp
420 425 430

Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro
435 440 445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Tyr His Glu Val Pro Asp
465 470 475

<210> 209
<211> 477
<212> PRT
<213> Homo sapiens

<400> 209

Met Gly Ser Cys Ala Arg Leu Leu Leu Leu Trp Gly Cys Thr Val Val
1 5 10 15

Ala Ala Gly Leu Ser Gly Val Ala Gly Val Ser Ser Arg Cys Glu Lys
20 25 30

Ala Cys Asn Pro Arg Met Gly Asn Leu Ala Leu Gly Arg Lys Leu Trp
35 40 45

Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
50 55 60

Ser Glu Asn Lys Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
65 70 75 80

Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp
85 90 95

Ser Ser Phe Arg Phe Pro Arg Thr Trp Trp Gln Ser Ala Glu Asp Val
100 105 110

His Arg Glu Lys Ile Gln Leu Asp Leu Glu Ala Glu Phe Tyr Phe Thr
115 120 125

His Leu Ile Val Met Phe Lys Ser Pro Arg Pro Ala Ala Met Val Leu
130 135 140

Asp Arg Ser Gln Asp Phe Gly Lys Thr Trp Lys Pro Tyr Lys Tyr Phe
145 150 155 160

Ala Thr Asn Cys Ser Ala Thr Phe Gly Leu Glu Asp Asp Val Val Lys
165 170 175

Lys Gly Ala Ile Cys Thr Ser Lys Tyr Ser Ser Pro Phe Pro Cys Thr
180 185 190

Gly Gly Glu Val Ile Phe Lys Ala Leu Ser Pro Pro His Asp Thr Glu

195		200		205
Asn Pro Tyr Ser Ala Lys Val Gln Glu Gln Leu Lys Ile Thr Asn Leu				
210		215		220
Arg Val Gln Leu Leu Lys Arg Gln Ser Cys Pro Cys Gln Arg Asn Asp				
225		230		240
Leu Asn Glu Glu Pro Gln His Phe Thr His Tyr Ala Ile Tyr Asp Phe				
		245		250
				255
Ile Val Lys Gly Ser Cys Phe Cys Asn Gly His Ala Asp Gln Cys Ile				
		260		265
				270
Pro Val His Gly Phe Arg Pro Val Lys Ala Pro Gly Thr Phe His Met				
		275		280
				285
Val His Gly Lys Cys Met Cys Lys His Asn Thr Ala Gly Ser His Cys				
		290		295
				300
Gln His Cys Ala Pro Leu Tyr Asn Asp Arg Pro Trp Glu Ala Ala Asp				
305		310		315
				320
Gly Lys Thr Gly Ala Pro Asn Glu Cys Arg Ala Arg Lys Cys Asn Gly				
		325		330
				335
His Ala Asp Thr Cys His Phe Asp Val Asn Val Trp Glu Ala Ser Gly				
		340		345
				350
Ser Arg Ser Gly Gly Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly				
		355		360
				365
Gln Tyr Cys Gln Arg Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg				
		370		375
				380
Pro Phe Ser Ala Pro Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val				
385		390		395
				400
Gly Ser Ala Val Leu Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser				
		405		410
				415
Asn Gly Asp Cys Pro Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp				
		420		425
				430
Arg Cys Met Val Gly Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro				
		435		440
				445

Cys Asp Cys Ala Gly Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser
450 455 460

Ser His Thr Asp Ile Asp Trp Cys His Glu Val Pro Asp
465 470 475