

SEQUENCE LISTING

<110> Novo Nordisk A/S

<120> DNER-MEDIATED CELL PURIFICATION OF PANCREATIC ENDOCRINE CELLS AND THEIR PROGENY

<130> 7778.204-WO

<160> 7

<170> PatentIn version 3.3

<210> 1

<211> 737

<212> PRT

<213> Homo sapiens

<400> 1

Met Gln Pro Arg Arg Ala Gln Ala Pro Gly Ala Gln Leu Leu Pro Ala
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Leu Ala Leu Leu Leu Leu Leu Gly Ala Gly Pro Arg Gly Ser Ser
20 25 30

Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro Gly Pro Cys
35 40 45

Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr Ser Arg Pro Glu
50 55 60

Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu Pro Gly Tyr Ser Cys
65 70 75 80

Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn Cys Gln Leu Val Ala Asp
85 90 95

Pro Cys Ala Ser Asn Pro Cys His His Gly Asn Cys Ser Ser Ser Ser
100 105 110

Ser Ser Ser Ser Asp Gly Tyr Leu Cys Ile Cys Asn Glu Gly Tyr Glu
115 120 125

Gly Pro Asn Cys Glu Gln Ala Leu Pro Ser Leu Pro Ala Thr Gly Trp
130 135 140

Thr Glu Ser Met Ala Pro Arg Gln Leu Gln Pro Val Pro Ala Thr Gln

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

Thr Gly Glu Leu Cys Gln Ser Lys Ile Asp Tyr Cys Ile Leu Asp Pro
385 390 395 400

Cys Arg Asn Gly Ala Thr Cys Ile Ser Ser Leu Ser Gly Phe Thr Cys
405 410 415

Gln Cys Pro Glu Gly Tyr Phe Gly Ser Ala Cys Glu Glu Lys Val Asp
420 425 430

Pro Cys Ala Ser Ser Pro Cys Gln Asn Asn Gly Thr Cys Tyr Val Asp
435 440 445

Gly Val His Phe Thr Cys Asn Cys Ser Pro Gly Phe Thr Gly Pro Thr
450 455 460

Cys Ala Gln Leu Ile Asp Phe Cys Ala Leu Ser Pro Cys Ala His Gly
465 470 475 480

Thr Cys Arg Ser Val Gly Thr Ser Tyr Lys Cys Leu Cys Asp Pro Gly
485 490 495

Tyr His Gly Leu Tyr Cys Glu Glu Glu Tyr Asn Glu Cys Leu Ser Ala
500 505 510

Pro Cys Leu Asn Ala Ala Thr Cys Arg Asp Leu Val Asn Gly Tyr Glu
515 520 525

Cys Val Cys Leu Ala Glu Tyr Lys Gly Thr His Cys Glu Leu Tyr Lys
530 535 540

Asp Pro Cys Ala Asn Val Ser Cys Leu Asn Gly Ala Thr Cys Asp Ser
545 550 555 560

Asp Gly Leu Asn Gly Thr Cys Ile Cys Ala Pro Gly Phe Thr Gly Glu
565 570 575

Glu Cys Asp Ile Asp Ile Asn Glu Cys Asp Ser Asn Pro Cys His His
580 585 590

Gly Gly Ser Cys Leu Asp Gln Pro Asn Gly Tyr Asn Cys His Cys Pro
595 600 605

His Gly Trp Val Gly Ala Asn Cys Glu Ile His Leu Gln Trp Lys Ser
610 615 620

Gly His Met Ala Glu Ser Leu Thr Asn Met Pro Arg His Ser Leu Tyr
625 630 635 640

Ile Ile Ile Gly Ala Leu Cys Val Ala Phe Ile Leu Met Leu Ile Ile
645 650 655

Leu Ile Val Gly Ile Cys Arg Ile Ser Arg Ile Glu Tyr Gln Gly Ser
660 665 670

Ser Arg Pro Ala Tyr Glu Glu Phe Tyr Asn Cys Arg Ser Ile Asp Ser
675 680 685

Glu Phe Ser Asn Ala Ile Ala Ser Ile Arg His Ala Arg Phe Gly Lys
690 695 700

Lys Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
705 710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys Asp
725 730 735

Leu

<210> 2
<211> 737
<212> PRT
<213> Mus musculus

<400> 2

Met Pro Pro Arg Arg Ala Gln Ala Pro Gly Ala Pro Leu Leu Pro Val
1 5 10 15

Leu Ala Leu Leu Pro Leu Leu Leu Gly Ala Gly Pro Gln Ser Gly Cys
20 25 30

Leu Ala Ser Pro Val Ser Ala Ala Pro Leu Pro Ala Pro Gly Pro Cys
35 40 45

Ala Ser Gln Pro Cys Arg Asn Gly Gly Val Cys Thr Pro Arg Ser Val

50						55						60					
Thr	Asp	Gln	Glu	His	Pro	Ala	Ala	Asp	Ala	Glu	Pro	Arg	Tyr	Ser	Cys		
65					70					75					80		
Thr	Cys	Pro	Ala	Gly	Val	Ser	Gly	Thr	Tyr	Cys	Gln	Phe	Val	Ala	Asp		
				85					90					95			
Pro	Cys	Ala	Ser	Asn	Pro	Cys	His	His	Gly	Asn	Cys	Ser	Ser	Ser	Ser		
			100					105					110				
Ser	Ser	Ser	Ser	Asp	Ser	Tyr	Leu	Cys	Ile	Cys	Asn	Asp	Gly	Tyr	Glu		
		115					120					125					
Gly	Leu	Asn	Cys	Glu	Gln	Pro	Leu	Pro	Ser	Ile	Pro	Thr	Ser	Gly	Trp		
	130					135					140						
Thr	Glu	Ser	Thr	Ala	Pro	Arg	Gln	Leu	Gln	Pro	Val	Pro	Ala	Thr	Gln		
145					150					155					160		
Glu	Pro	Asp	Ile	Ile	Leu	Pro	Arg	Ser	Gln	Ala	Thr	Val	Thr	Leu	Pro		
				165					170					175			
Thr	Trp	Gln	Pro	Lys	Thr	Gly	Gln	Lys	Val	Val	Glu	Met	Lys	Trp	Asp		
			180					185					190				
Gln	Val	Glu	Val	Val	Pro	Asp	Val	Ala	Cys	Gly	Asn	Ala	Ser	Ser	Asn		
	195						200					205					
Asn	Ser	Ala	Gly	Gly	Arg	Leu	Val	Ser	Phe	Glu	Val	Pro	Gln	Asn	Thr		
	210					215					220						
Ser	Val	Lys	Ile	Arg	Gln	Asp	Ala	Asn	Ser	Leu	Leu	Ile	Leu	Leu	Trp		
225					230					235					240		
Lys	Val	Thr	Ala	Thr	Gly	Phe	Gln	Gln	Cys	Ser	Leu	Ile	Asp	Gly	Arg		
				245					250					255			
Ser	Val	Thr	Pro	Leu	Gln	Ala	Pro	Gly	Gly	Leu	Val	Leu	Leu	Glu	Glu		
			260					265					270				
Met	Leu	Ala	Leu	Gly	Pro	Asn	His	Phe	Ile	Gly	Phe	Val	Asn	Asp	Ser		
	275						280					285					

Val Ala Lys Ser Ile Val Ala Leu Arg Leu Thr Leu Val Val Lys Ala
290 295 300

Ser Asn Cys Val Pro Gly Asp Ser His Ser Asn Asp Leu Glu Cys Ser
305 310 315 320

Gly Lys Gly Lys Cys Ala Thr Lys Pro Ser Glu Ala Thr Phe Ser Cys
325 330 335

Thr Cys Gln Asp Gln Tyr Ile Gly Thr Phe Cys Glu Glu Phe Asp Ala
340 345 350

Cys Gln Arg Lys Pro Cys Gln Asn Glu Ala Ser Cys Ile Asp Ala Asn
355 360 365

Glu Lys Gln Asp Gly Ser Asn Phe Thr Cys Leu Cys Leu Pro Gly Tyr
370 375 380

Thr Gly Glu Leu Cys Gln Ser Lys Ile Asp Tyr Cys Val Leu Asp Pro
385 390 395 400

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

Gln Cys Leu Glu Gly Tyr Phe Gly Ser Ala Cys Glu Glu Lys Val Asp
420 425 430

Pro Cys Met Ser Ser Pro Cys Gln Asn Asn Gly Thr Cys Tyr Val Asp
435 440 445

Gly Val His Phe Thr Cys Ser Cys Ser Pro Gly Phe Thr Gly Pro Thr
450 455 460

Cys Ala Gln Leu Val Asp Phe Cys Ala Leu Ser Pro Cys Ala His Gly
465 470 475 480

Met Cys Arg Ser Val Gly Thr Ser Tyr Lys Cys Leu Cys Asp Pro Gly
485 490 495

Tyr His Gly Leu Tyr Cys Glu Glu Glu Tyr Asn Glu Cys Leu Ser Ala
500 505 510

Pro Cys Leu Asn Ala Ala Thr Cys Arg Asp Leu Ile Asn Gly Tyr Glu
515 520 525

Cys Val Cys Leu Ala Glu Tyr Lys Gly Thr His Cys Glu Leu Tyr Lys
530 535 540

Asp Pro Cys Ala Asn Ile Ser Cys Leu Asn Gly Gly Thr Cys Asp Ser
545 550 555 560

Glu Gly Leu Asn Gly Thr Cys Ile Cys Ala Pro Gly Phe Thr Gly Glu
565 570 575

Glu Cys Asp Ile Asp Ile Asn Glu Cys Asp Ser Asn Pro Cys His His
580 585 590

Ala Gly Thr Cys Leu Asp Gln Pro Asn Gly Tyr Thr Cys His Cys Pro
595 600 605

His Gly Trp Val Gly Ala Asn Cys Glu Ile His Leu Gln Trp Lys Ser
610 615 620

Gly His Met Ala Glu Ser Leu Thr Asn Met Pro Arg His Ser Leu Tyr
625 630 635 640

Ile Ile Ile Gly Ala Leu Cys Val Ala Phe Ile Leu Met Leu Ile Ile
645 650 655

Leu Ile Val Gly Ile Cys Arg Ile Ser Arg Ile Glu Tyr Gln Gly Ser
660 665 670

Ser Arg Pro Ala Tyr Glu Glu Phe Tyr Asn Cys Arg Ser Ile Asp Ser
675 680 685

Glu Phe Ser Asn Ala Ile Ala Ser Ile Arg His Ala Arg Phe Gly Lys
690 695 700

Lys Ser Arg Pro Ala Met Tyr Asp Val Thr Pro Ile Ala Tyr Glu Asp
705 710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys Asp
725 730 735

Leu

<210> 3
<211> 913
<212> PRT
<213> Homo sapiens

<400> 3

Met Gly Pro Glu Ala Leu Ser Ser Leu Leu Leu Leu Leu Val Ala
1 5 10 15

Ser Gly Asp Ala Asp Met Lys Gly His Phe Asp Pro Ala Lys Cys Arg
20 25 30

Tyr Ala Leu Gly Met Gln Asp Arg Thr Ile Pro Asp Ser Asp Ile Ser
35 40 45

Ala Ser Ser Ser Trp Ser Asp Ser Thr Ala Ala Arg His Ser Arg Leu
50 55 60

Glu Ser Ser Asp Gly Asp Gly Ala Trp Cys Pro Ala Gly Ser Val Phe
65 70 75 80

Pro Lys Glu Glu Glu Tyr Leu Gln Val Asp Leu Gln Arg Leu His Leu
85 90 95

Val Ala Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly Leu Gly Lys
100 105 110

Glu Phe Ser Arg Ser Tyr Arg Leu Arg Tyr Ser Arg Asp Gly Arg Arg
115 120 125

Trp Met Gly Trp Lys Asp Arg Trp Gly Gln Glu Val Ile Ser Gly Asn
130 135 140

Glu Asp Pro Glu Gly Val Val Leu Lys Asp Leu Gly Pro Pro Met Val
145 150 155 160

Ala Arg Leu Val Arg Phe Tyr Pro Arg Ala Asp Arg Val Met Ser Val
165 170 175

Cys Leu Arg Val Glu Leu Tyr Gly Cys Leu Trp Arg Asp Gly Leu Leu
180 185 190

Ser Tyr Thr Ala Pro Val Gly Gln Thr Met Tyr Leu Ser Glu Ala Val
195 200 205

Tyr Leu Asn Asp Ser Thr Tyr Asp Gly His Thr Val Gly Gly Leu Gln
210 215 220

Tyr Gly Gly Leu Gly Gln Leu Ala Asp Gly Val Val Gly Leu Asp Asp
225 230 235 240

Phe Arg Lys Ser Gln Glu Leu Arg Val Trp Pro Gly Tyr Asp Tyr Val
245 250 255

Gly Trp Ser Asn His Ser Phe Ser Ser Gly Tyr Val Glu Met Glu Phe
260 265 270

Glu Phe Asp Arg Leu Arg Ala Phe Gln Ala Met Gln Val His Cys Asn
275 280 285

Asn Met His Thr Leu Gly Ala Arg Leu Pro Gly Gly Val Glu Cys Arg
290 295 300

Phe Arg Arg Gly Pro Ala Met Ala Trp Glu Gly Glu Pro Met Arg His
305 310 315 320

Asn Leu Gly Gly Asn Leu Gly Asp Pro Arg Ala Arg Ala Val Ser Val
325 330 335

Pro Leu Gly Gly Arg Val Ala Arg Phe Leu Gln Cys Arg Phe Leu Phe
340 345 350

Ala Gly Pro Trp Leu Leu Phe Ser Glu Ile Ser Phe Ile Ser Asp Val
355 360 365

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

Trp Trp Pro Pro Gly Pro Pro Pro Thr Asn Phe Ser Ser Leu Glu Leu
385 390 395 400

Glu Pro Arg Gly Gln Gln Pro Val Ala Lys Ala Glu Gly Ser Pro Thr
405 410 415

Ala Ile Leu Ile Gly Cys Leu Val Ala Ile Ile Leu Leu Leu Leu Leu
420 425 430

Ile Ile Ala Leu Met Leu Trp Arg Leu His Trp Arg Arg Leu Leu Ser
435 440 445

Lys Ala Glu Arg Arg Val Leu Glu Glu Glu Leu Thr Val His Leu Ser
450 455 460

Val Pro Gly Asp Thr Ile Leu Ile Asn Asn Arg Pro Gly Pro Arg Glu
465 470 475 480

Pro Pro Pro Tyr Gln Glu Pro Arg Pro Arg Gly Asn Pro Pro His Ser
485 490 495

Ala Pro Cys Val Pro Asn Gly Ser Ala Leu Leu Leu Ser Asn Pro Ala
500 505 510

Tyr Arg Leu Leu Leu Ala Thr Tyr Ala Arg Pro Pro Arg Gly Pro Gly
515 520 525

Pro Pro Thr Pro Ala Trp Ala Lys Pro Thr Asn Thr Gln Ala Tyr Ser
530 535 540

Gly Asp Tyr Met Glu Pro Glu Lys Pro Gly Ala Pro Leu Leu Pro Pro
545 550 555 560

Pro Pro Gln Asn Ser Val Pro His Tyr Ala Glu Ala Asp Ile Val Thr
565 570 575

Leu Gln Gly Val Thr Gly Gly Asn Thr Tyr Ala Val Pro Ala Leu Pro
580 585 590

Pro Gly Ala Val Gly Asp Gly Pro Pro Arg Val Asp Phe Pro Arg Ser
595 600 605

Arg Leu Arg Phe Lys Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu Val
610 615 620

His Leu Cys Glu Val Asp Ser Pro Gln Asp Leu Val Ser Leu Asp Phe
625 630 635 640

Pro Leu Asn Val Arg Lys Gly His Pro Leu Leu Val Ala Val Lys Ile
645 650 655

Leu Arg Pro Asp Ala Thr Lys Asn Ala Arg Asn Asp Phe Leu Lys Glu
660 665 670

Val Lys Ile Met Ser Arg Leu Lys Asp Pro Asn Ile Ile Arg Leu Leu
675 680 685

Gly Val Cys Val Gln Asp Asp Pro Leu Cys Met Ile Thr Asp Tyr Met
690 695 700

Glu Asn Gly Asp Leu Asn Gln Phe Leu Ser Ala His Gln Leu Glu Asp
705 710 715 720

Lys Ala Ala Glu Gly Ala Pro Gly Asp Gly Gln Ala Ala Gln Gly Pro
725 730 735

Thr Ile Ser Tyr Pro Met Leu Leu His Val Ala Ala Gln Ile Ala Ser
740 745 750

Gly Met Arg Tyr Leu Ala Thr Leu Asn Phe Val His Arg Asp Leu Ala
755 760 765

Thr Arg Asn Cys Leu Val Gly Glu Asn Phe Thr Ile Lys Ile Ala Asp
770 775 780

Phe Gly Met Ser Arg Asn Leu Tyr Ala Gly Asp Tyr Tyr Arg Val Gln
785 790 795 800

Gly Arg Ala Val Leu Pro Ile Arg Trp Met Ala Trp Glu Cys Ile Leu
805 810 815

Met Gly Lys Phe Thr Thr Ala Ser Asp Val Trp Ala Phe Gly Val Thr
820 825 830

Leu Trp Glu Val Leu Met Leu Cys Arg Ala Gln Pro Phe Gly Gln Leu
835 840 845

Thr Asp Glu Gln Val Ile Glu Asn Ala Gly Glu Phe Phe Arg Asp Gln
850 855 860

Gly Arg Gln Val Tyr Leu Ser Arg Pro Pro Ala Cys Pro Gln Gly Leu

865 870 875 880

Tyr Glu Leu Met Leu Arg Cys Trp Ser Arg Glu Ser Glu Gln Arg Pro
885 890 895

Pro Phe Ser Gln Leu His Arg Phe Leu Ala Glu Asp Ala Leu Asn Thr
900 905 910

Val

<210> 4
<211> 876
<212> PRT
<213> Homo sapiens

<400> 4

Met Gly Pro Glu Ala Leu Ser Ser Leu Leu Leu Leu Leu Val Ala
1 5 10 15

Ser Gly Asp Ala Asp Met Lys Gly His Phe Asp Pro Ala Lys Cys Arg
20 25 30

Tyr Ala Leu Gly Met Gln Asp Arg Thr Ile Pro Asp Ser Asp Ile Ser
35 40 45

Ala Ser Ser Ser Trp Ser Asp Ser Thr Ala Ala Arg His Ser Arg Leu
50 55 60

Glu Ser Ser Asp Gly Asp Gly Ala Trp Cys Pro Ala Gly Ser Val Phe
65 70 75 80

Pro Lys Glu Glu Glu Tyr Leu Gln Val Asp Leu Gln Arg Leu His Leu
85 90 95

Val Ala Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly Leu Gly Lys
100 105 110

Glu Phe Ser Arg Ser Tyr Arg Leu Arg Tyr Ser Arg Asp Gly Arg Arg
115 120 125

Trp Met Gly Trp Lys Asp Arg Trp Gly Gln Glu Val Ile Ser Gly Asn
130 135 140

Glu Asp Pro Glu Gly Val Val Leu Lys Asp Leu Gly Pro Pro Met Val
145 150 155 160

Ala Arg Leu Val Arg Phe Tyr Pro Arg Ala Asp Arg Val Met Ser Val
165 170 175

Cys Leu Arg Val Glu Leu Tyr Gly Cys Leu Trp Arg Asp Gly Leu Leu
180 185 190

Ser Tyr Thr Ala Pro Val Gly Gln Thr Met Tyr Leu Ser Glu Ala Val
195 200 205

Tyr Leu Asn Asp Ser Thr Tyr Asp Gly His Thr Val Gly Gly Leu Gln
210 215 220

Tyr Gly Gly Leu Gly Gln Leu Ala Asp Gly Val Val Gly Leu Asp Asp
225 230 235 240

Phe Arg Lys Ser Gln Glu Leu Arg Val Trp Pro Gly Tyr Asp Tyr Val
245 250 255

Gly Trp Ser Asn His Ser Phe Ser Ser Gly Tyr Val Glu Met Glu Phe
260 265 270

Glu Phe Asp Arg Leu Arg Ala Phe Gln Ala Met Gln Val His Cys Asn
275 280 285

Asn Met His Thr Leu Gly Ala Arg Leu Pro Gly Gly Val Glu Cys Arg
290 295 300

Phe Arg Arg Gly Pro Ala Met Ala Trp Glu Gly Glu Pro Met Arg His
305 310 315 320

Asn Leu Gly Gly Asn Leu Gly Asp Pro Arg Ala Arg Ala Val Ser Val
325 330 335

Pro Leu Gly Gly Arg Val Ala Arg Phe Leu Gln Cys Arg Phe Leu Phe
340 345 350

Ala Gly Pro Trp Leu Leu Phe Ser Glu Ile Ser Phe Ile Ser Asp Val
355 360 365

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

Trp Trp Pro Pro Gly Pro Pro Pro Thr Asn Phe Ser Ser Leu Glu Leu
385 390 395 400

Glu Pro Arg Gly Gln Gln Pro Val Ala Lys Ala Glu Gly Ser Pro Thr
405 410 415

Ala Ile Leu Ile Gly Cys Leu Val Ala Ile Ile Leu Leu Leu Leu Leu
420 425 430

Ile Ile Ala Leu Met Leu Trp Arg Leu His Trp Arg Arg Leu Leu Ser
435 440 445

Lys Ala Glu Arg Arg Val Leu Glu Glu Glu Leu Thr Val His Leu Ser
450 455 460

Val Pro Gly Asp Thr Ile Leu Ile Asn Asn Arg Pro Gly Pro Arg Glu
465 470 475 480

Pro Pro Pro Tyr Gln Glu Pro Arg Pro Arg Gly Asn Pro Pro His Ser
485 490 495

Ala Pro Cys Val Pro Asn Gly Ser Ala Tyr Ser Gly Asp Tyr Met Glu
500 505 510

Pro Glu Lys Pro Gly Ala Pro Leu Leu Pro Pro Pro Pro Gln Asn Ser
515 520 525

Val Pro His Tyr Ala Glu Ala Asp Ile Val Thr Leu Gln Gly Val Thr
530 535 540

Gly Gly Asn Thr Tyr Ala Val Pro Ala Leu Pro Pro Gly Ala Val Gly
545 550 555 560

Asp Gly Pro Pro Arg Val Asp Phe Pro Arg Ser Arg Leu Arg Phe Lys
565 570 575

Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu Val His Leu Cys Glu Val
580 585 590

Asp Ser Pro Gln Asp Leu Val Ser Leu Asp Phe Pro Leu Asn Val Arg

595																	
Lys	Gly	His	Pro	Leu	Leu	Val	Ala	Val	Lys	Ile	Leu	Arg	Pro	Asp	Ala		
610						615					620						
Thr	Lys	Asn	Ala	Arg	Asn	Asp	Phe	Leu	Lys	Glu	Val	Lys	Ile	Met	Ser		
625					630					635					640		
Arg	Leu	Lys	Asp	Pro	Asn	Ile	Ile	Arg	Leu	Leu	Gly	Val	Cys	Val	Gln		
				645					650					655			
Asp	Asp	Pro	Leu	Cys	Met	Ile	Thr	Asp	Tyr	Met	Glu	Asn	Gly	Asp	Leu		
			660					665					670				
Asn	Gln	Phe	Leu	Ser	Ala	His	Gln	Leu	Glu	Asp	Lys	Ala	Ala	Glu	Gly		
		675					680					685					
Ala	Pro	Gly	Asp	Gly	Gln	Ala	Ala	Gln	Gly	Pro	Thr	Ile	Ser	Tyr	Pro		
	690					695					700						
Met	Leu	Leu	His	Val	Ala	Ala	Gln	Ile	Ala	Ser	Gly	Met	Arg	Tyr	Leu		
705					710					715					720		
Ala	Thr	Leu	Asn	Phe	Val	His	Arg	Asp	Leu	Ala	Thr	Arg	Asn	Cys	Leu		
				725					730					735			
Val	Gly	Glu	Asn	Phe	Thr	Ile	Lys	Ile	Ala	Asp	Phe	Gly	Met	Ser	Arg		
			740					745					750				
Asn	Leu	Tyr	Ala	Gly	Asp	Tyr	Tyr	Arg	Val	Gln	Gly	Arg	Ala	Val	Leu		
		755					760					765					
Pro	Ile	Arg	Trp	Met	Ala	Trp	Glu	Cys	Ile	Leu	Met	Gly	Lys	Phe	Thr		
	770					775					780						
Thr	Ala	Ser	Asp	Val	Trp	Ala	Phe	Gly	Val	Thr	Leu	Trp	Glu	Val	Leu		
785					790					795					800		
Met	Leu	Cys	Arg	Ala	Gln	Pro	Phe	Gly	Gln	Leu	Thr	Asp	Glu	Gln	Val		
				805					810					815			
Ile	Glu	Asn	Ala	Gly	Glu	Phe	Phe	Arg	Asp	Gln	Gly	Arg	Gln	Val	Tyr		
			820					825					830				

Leu Ser Arg Pro Pro Ala Cys Pro Gln Gly Leu Tyr Glu Leu Met Leu
835 840 845

Arg Cys Trp Ser Arg Glu Ser Glu Gln Arg Pro Pro Phe Ser Gln Leu
850 855 860

His Arg Phe Leu Ala Glu Asp Ala Leu Asn Thr Val
865 870 875

<210> 5
<211> 919
<212> PRT
<213> Homo sapiens

<400> 5

Met Gly Pro Glu Ala Leu Ser Ser Leu Leu Leu Leu Leu Val Ala
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Ser Gly Asp Ala Asp Met Lys Gly His Phe Asp Pro Ala Lys Cys Arg
20 25 30

Tyr Ala Leu Gly Met Gln Asp Arg Thr Ile Pro Asp Ser Asp Ile Ser
35 40 45

Ala Ser Ser Ser Trp Ser Asp Ser Thr Ala Ala Arg His Ser Arg Leu
50 55 60

Glu Ser Ser Asp Gly Asp Gly Ala Trp Cys Pro Ala Gly Ser Val Phe
65 70 75 80

Pro Lys Glu Glu Glu Tyr Leu Gln Val Asp Leu Gln Arg Leu His Leu
85 90 95

Val Ala Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly Leu Gly Lys
100 105 110

Glu Phe Ser Arg Ser Tyr Arg Leu Arg Tyr Ser Arg Asp Gly Arg Arg
115 120 125

Trp Met Gly Trp Lys Asp Arg Trp Gly Gln Glu Val Ile Ser Gly Asn
130 135 140

Glu Asp Pro Glu Gly Val Val Leu Lys Asp Leu Gly Pro Pro Met Val
145 150 155 160

Ala Arg Leu Val Arg Phe Tyr Pro Arg Ala Asp Arg Val Met Ser Val
165 170 175

Cys Leu Arg Val Glu Leu Tyr Gly Cys Leu Trp Arg Asp Gly Leu Leu
180 185 190

Ser Tyr Thr Ala Pro Val Gly Gln Thr Met Tyr Leu Ser Glu Ala Val
195 200 205

Tyr Leu Asn Asp Ser Thr Tyr Asp Gly His Thr Val Gly Gly Leu Gln
210 215 220

Tyr Gly Gly Leu Gly Gln Leu Ala Asp Gly Val Val Gly Leu Asp Asp
225 230 235 240

Phe Arg Lys Ser Gln Glu Leu Arg Val Trp Pro Gly Tyr Asp Tyr Val
245 250 255

Gly Trp Ser Asn His Ser Phe Ser Ser Gly Tyr Val Glu Met Glu Phe
260 265 270

Glu Phe Asp Arg Leu Arg Ala Phe Gln Ala Met Gln Val His Cys Asn
275 280 285

Asn Met His Thr Leu Gly Ala Arg Leu Pro Gly Gly Val Glu Cys Arg
290 295 300

Phe Arg Arg Gly Pro Ala Met Ala Trp Glu Gly Glu Pro Met Arg His
305 310 315 320

Asn Leu Gly Gly Asn Leu Gly Asp Pro Arg Ala Arg Ala Val Ser Val
325 330 335

Pro Leu Gly Gly Arg Val Ala Arg Phe Leu Gln Cys Arg Phe Leu Phe
340 345 350

Ala Gly Pro Trp Leu Leu Phe Ser Glu Ile Ser Phe Ile Ser Asp Val
355 360 365

Val Asn Asn Ser Ser Pro Ala Leu Gly Gly Thr Phe Pro Pro Ala Pro

370						375									380
Trp	Trp	Pro	Pro	Gly	Pro	Pro	Pro	Thr	Asn	Phe	Ser	Ser	Leu	Glu	Leu
385					390					395					400
Glu	Pro	Arg	Gly	Gln	Gln	Pro	Val	Ala	Lys	Ala	Glu	Gly	Ser	Pro	Thr
				405					410					415	
Ala	Ile	Leu	Ile	Gly	Cys	Leu	Val	Ala	Ile	Ile	Leu	Leu	Leu	Leu	Leu
				420				425						430	
Ile	Ile	Ala	Leu	Met	Leu	Trp	Arg	Leu	His	Trp	Arg	Arg	Leu	Leu	Ser
		435					440					445			
Lys	Ala	Glu	Arg	Arg	Val	Leu	Glu	Glu	Glu	Leu	Thr	Val	His	Leu	Ser
	450					455					460				
Val	Pro	Gly	Asp	Thr	Ile	Leu	Ile	Asn	Asn	Arg	Pro	Gly	Pro	Arg	Glu
465					470					475					480
Pro	Pro	Pro	Tyr	Gln	Glu	Pro	Arg	Pro	Arg	Gly	Asn	Pro	Pro	His	Ser
				485					490					495	
Ala	Pro	Cys	Val	Pro	Asn	Gly	Ser	Ala	Leu	Leu	Leu	Ser	Asn	Pro	Ala
			500					505					510		
Tyr	Arg	Leu	Leu	Leu	Ala	Thr	Tyr	Ala	Arg	Pro	Pro	Arg	Gly	Pro	Gly
		515					520					525			
Pro	Pro	Thr	Pro	Ala	Trp	Ala	Lys	Pro	Thr	Asn	Thr	Gln	Ala	Tyr	Ser
	530					535					540				
Gly	Asp	Tyr	Met	Glu	Pro	Glu	Lys	Pro	Gly	Ala	Pro	Leu	Leu	Pro	Pro
545					550					555					560
Pro	Pro	Gln	Asn	Ser	Val	Pro	His	Tyr	Ala	Glu	Ala	Asp	Ile	Val	Thr
				565					570					575	
Leu	Gln	Gly	Val	Thr	Gly	Gly	Asn	Thr	Tyr	Ala	Val	Pro	Ala	Leu	Pro
			580					585					590		
Pro	Gly	Ala	Val	Gly	Asp	Gly	Pro	Pro	Arg	Val	Asp	Phe	Pro	Arg	Ser
		595					600					605			

Arg Leu Arg Phe Lys Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu Val
610 615 620

His Leu Cys Glu Val Asp Ser Pro Gln Asp Leu Val Ser Leu Asp Phe
625 630 635 640

Pro Leu Asn Val Arg Lys Gly His Pro Leu Leu Val Ala Val Lys Ile
645 650 655

Leu Arg Pro Asp Ala Thr Lys Asn Ala Ser Phe Ser Leu Phe Ser Arg
660 665 670

Asn Asp Phe Leu Lys Glu Val Lys Ile Met Ser Arg Leu Lys Asp Pro
675 680 685

Asn Ile Ile Arg Leu Leu Gly Val Cys Val Gln Asp Asp Pro Leu Cys
690 695 700

Met Ile Thr Asp Tyr Met Glu Asn Gly Asp Leu Asn Gln Phe Leu Ser
705 710 715 720

Ala His Gln Leu Glu Asp Lys Ala Ala Glu Gly Ala Pro Gly Asp Gly
725 730 735

Gln Ala Ala Gln Gly Pro Thr Ile Ser Tyr Pro Met Leu Leu His Val
740 745 750

Ala Ala Gln Ile Ala Ser Gly Met Arg Tyr Leu Ala Thr Leu Asn Phe
755 760 765

Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu Val Gly Glu Asn Phe
770 775 780

Thr Ile Lys Ile Ala Asp Phe Gly Met Ser Arg Asn Leu Tyr Ala Gly
785 790 795 800

Asp Tyr Tyr Arg Val Gln Gly Arg Ala Val Leu Pro Ile Arg Trp Met
805 810 815

Ala Trp Glu Cys Ile Leu Met Gly Lys Phe Thr Thr Ala Ser Asp Val
820 825 830

Trp Ala Phe Gly Val Thr Leu Trp Glu Val Leu Met Leu Cys Arg Ala
835 840 845

Gln Pro Phe Gly Gln Leu Thr Asp Glu Gln Val Ile Glu Asn Ala Gly
850 855 860

Glu Phe Phe Arg Asp Gln Gly Arg Gln Val Tyr Leu Ser Arg Pro Pro
865 870 875 880

Ala Cys Pro Gln Gly Leu Tyr Glu Leu Met Leu Arg Cys Trp Ser Arg
885 890 895

Glu Ser Glu Gln Arg Pro Pro Phe Ser Gln Leu His Arg Phe Leu Ala
900 905 910

Glu Asp Ala Leu Asn Thr Val
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Thr Ile Gly Asp Ala Asp Met Lys Gly His Phe Asp Pro Ala Lys Cys
20 25 30

Arg Tyr Ala Leu Gly Met Gln Asp Arg Thr Ile Pro Asp Ser Asp Ile
35 40 45

Ser Val Ser Ser Ser Trp Ser Asp Ser Thr Ala Ala Arg His Ser Arg
50 55 60

Leu Glu Ser Ser Asp Gly Asp Gly Ala Trp Cys Pro Ala Gly Pro Val
65 70 75 80

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

Leu Val Ala Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly Leu Gly

	100		105		110										
Lys	Glu	Phe	Ser	Arg	Ser	Tyr	Arg	Leu	Arg	Tyr	Ser	Arg	Asp	Gly	Arg
	115						120					125			
Arg	Trp	Met	Asp	Trp	Lys	Asp	Arg	Trp	Gly	Gln	Glu	Val	Ile	Ser	Gly
	130					135					140				
Asn	Glu	Asp	Pro	Gly	Gly	Val	Val	Leu	Lys	Asp	Leu	Gly	Pro	Pro	Met
145					150					155					160
Val	Ala	Arg	Leu	Val	Arg	Phe	Tyr	Pro	Arg	Ala	Asp	Arg	Val	Met	Ser
				165					170					175	
Val	Cys	Leu	Arg	Val	Glu	Leu	Tyr	Gly	Cys	Leu	Trp	Arg	Asp	Gly	Leu
			180					185					190		
Leu	Ser	Tyr	Thr	Ala	Pro	Val	Gly	Gln	Thr	Met	Gln	Leu	Ser	Glu	Val
		195					200					205			
Met	Val	His	Leu	Asn	Asp	Ser	Thr	Tyr	Asp	Gly	Tyr	Thr	Ala	Gly	Gly
	210					215					220				
Leu	Gln	Tyr	Gly	Gly	Leu	Gly	Gln	Leu	Ala	Asp	Gly	Val	Val	Gly	Leu
225					230					235					240
Asp	Asp	Phe	Arg	Gln	Ser	Gln	Glu	Leu	Arg	Val	Trp	Pro	Gly	Tyr	Asp
				245					250					255	
Tyr	Val	Gly	Trp	Ser	Asn	Gln	Ser	Phe	Pro	Thr	Gly	Tyr	Val	Glu	Met
			260					265					270		
Glu	Phe	Glu	Phe	Asp	Arg	Leu	Arg	Thr	Phe	Gln	Thr	Met	Gln	Val	His
	275						280					285			
Cys	Asn	Asn	Met	His	Thr	Leu	Gly	Ala	Arg	Leu	Pro	Gly	Gly	Val	Glu
	290					295					300				
Cys	Arg	Phe	Lys	Arg	Gly	Pro	Ala	Met	Ala	Trp	Glu	Gly	Glu	Pro	Val
305					310					315					320
Arg	His	Ala	Leu	Gly	Gly	Ser	Leu	Gly	Asp	Pro	Arg	Ala	Arg	Ala	Ile
				325					330					335	

Ser Val Pro Leu Gly Gly His Val Gly Arg Phe Leu Gln Cys Arg Phe
340 345 350

Leu Phe Ala Gly Pro Trp Leu Leu Phe Ser Glu Ile Ser Phe Ile Ser
355 360 365

Asp Val Val Asn Asp Ser Ser Asp Thr Phe Pro Pro Ala Pro Trp Trp
370 375 380

Pro Pro Gly Pro Pro Pro Thr Asn Phe Ser Ser Leu Glu Leu Glu Pro
385 390 395 400

Arg Gly Gln Gln Pro Val Ala Lys Ala Glu Gly Ser Pro Thr Ala Ile
405 410 415

Leu Ile Gly Cys Leu Val Ala Ile Ile Leu Leu Leu Leu Leu Ile Ile
420 425 430

Ala Leu Met Leu Trp Arg Leu His Trp Arg Arg Leu Leu Ser Lys Ala
435 440 445

Glu Arg Arg Val Leu Glu Glu Glu Leu Thr Val His Leu Ser Val Pro
450 455 460

Gly Asp Thr Ile Leu Ile Asn Asn Arg Pro Gly Pro Arg Glu Pro Pro
465 470 475 480

Pro Tyr Gln Glu Pro Arg Pro Arg Gly Thr Pro Pro His Ser Ala Pro
485 490 495

Cys Val Pro Asn Gly Ser Ala Leu Leu Leu Ser Asn Pro Ala Tyr Arg
500 505 510

Leu Leu Leu Ala Thr Tyr Ala Arg Pro Pro Arg Gly Pro Gly Pro Pro
515 520 525

Thr Pro Ala Trp Ala Lys Pro Thr Asn Thr Gln Ala Cys Ser Gly Asp
530 535 540

Tyr Met Glu Pro Glu Lys Pro Gly Ala Pro Leu Leu Pro Pro Pro Pro
545 550 555 560

Gln Asn Ser Val Pro His Tyr Ala Glu Ala Asp Ile Val Thr Leu Gln
565 570 575

Gly Val Thr Gly Gly Asn Thr Tyr Ala Val Pro Ala Leu Pro Pro Gly
580 585 590

Ala Val Gly Asp Gly Pro Pro Arg Val Asp Phe Pro Arg Ser Arg Leu
595 600 605

Arg Phe Lys Glu Lys Leu Gly Glu Gly Gln Phe Gly Glu Val His Leu
610 615 620

Cys Glu Val Glu Asp Pro Gln Asp Leu Val Ser Ser Asp Phe Pro Ile
625 630 635 640

Ser Val His Lys Gly His Pro Leu Leu Val Ala Val Lys Ile Leu Arg
645 650 655

Pro Asp Ala Thr Lys Asn Ala Arg Asn Asp Phe Leu Lys Glu Val Lys
660 665 670

Ile Met Ser Arg Leu Lys Asp Pro Asn Ile Ile Arg Leu Leu Gly Val
675 680 685

Cys Val Gln Asp Asp Pro Leu Cys Met Ile Thr Asp Tyr Met Glu Asn
690 695 700

Gly Asp Leu Asn Gln Phe Leu Ser Ala Arg Gln Leu Glu Asn Lys Ala
705 710 715 720

Thr Gln Gly Leu Ser Gly Asp Thr Glu Ser Asp Gln Gly Pro Thr Ile
725 730 735

Ser Tyr Pro Met Leu Leu His Val Gly Ala Gln Ile Ala Ser Gly Met
740 745 750

Arg Tyr Leu Ala Thr Leu Asn Phe Val His Arg Asp Leu Ala Thr Arg
755 760 765

Asn Cys Leu Val Gly Glu Asn Phe Thr Ile Lys Ile Ala Asp Phe Gly
770 775 780

Met Ser Arg Asn Leu Tyr Ala Gly Asp Tyr Tyr Arg Val Gln Gly Arg
785 790 795 800

Ala Val Leu Pro Ile Arg Trp Met Ala Trp Glu Cys Ile Leu Met Gly
805 810 815

Lys Phe Thr Thr Ala Ser Asp Val Trp Ala Phe Gly Val Thr Leu Trp
820 825 830

Glu Val Leu Met Leu Cys Arg Ser Gln Pro Phe Gly Gln Leu Thr Asp
835 840 845

Glu Gln Val Ile Glu Asn Ala Gly Glu Phe Phe Arg Asp Gln Gly Arg
850 855 860

Gln Val Tyr Leu Ser Arg Pro Pro Ala Cys Pro Gln Thr Leu Tyr Glu
865 870 875 880

Leu Met Leu Arg Cys Trp Ser Arg Glu Pro Glu Gln Arg Pro Pro Phe
885 890 895

Ala Gln Leu His Arg Phe Leu Ala Asp Asp Ala Leu Asn Thr Val
900 905 910

<210> 7
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Met Gly Thr Gly Thr Leu Ser Ser Leu Leu Leu Leu Leu Leu Val
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Thr Ile Gly Asp Ala Asp Met Lys Gly His Phe Asp Pro Ala Lys Cys
20 25 30

Arg Tyr Ala Leu Gly Met Gln Asp Arg Thr Ile Pro Asp Ser Asp Ile
35 40 45

Ser Val Ser Ser Ser Trp Ser Asp Ser Thr Ala Ala Arg His Ser Arg
50 55 60

Leu Glu Ser Ser Asp Gly Asp Gly Ala Trp Cys Pro Ala Gly Pro Val
65 70 75 80

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

Leu Val Ala Leu Val Gly Thr Gln Gly Arg His Ala Gly Gly Leu Gly
100 105 110

Lys Glu Phe Ser Arg Ser Tyr Arg Leu Arg Tyr Ser Arg Asp Gly Arg
115 120 125

Arg Trp Met Asp Trp Lys Asp Arg Trp Gly Gln Glu Val Ile Ser Gly
130 135 140

Asn Glu Asp Pro Gly Gly Val Val Leu Lys Asp Leu Gly Pro Pro Met
145 150 155 160

Val Ala Arg Leu Val Arg Phe Tyr Pro Arg Ala Asp Arg Val Met Ser
165 170 175

Val Cys Leu Arg Val Glu Leu Tyr Gly Cys Leu Trp Arg Asp Gly Leu
180 185 190

Leu Ser Tyr Thr Ala Pro Val Gly Gln Thr Met Gln Leu Ser Glu Val
195 200 205

Met Val His Leu Asn Asp Ser Thr Tyr Asp Gly Tyr Thr Ala Gly Gly
210 215 220

Leu Gln Tyr Gly Gly Leu Gly Gln Leu Ala Asp Gly Val Val Gly Leu
225 230 235 240

Asp Asp Phe Arg Gln Ser Gln Glu Leu Arg Val Trp Pro Gly Tyr Asp
245 250 255

Tyr Val Gly Trp Ser Asn Gln Ser Phe Pro Thr Gly Tyr Val Glu Met
260 265 270

Glu Phe Glu Phe Asp Arg Leu Arg Thr Phe Gln Thr Met Gln Val His
275 280 285

Cys Asn Asn Met His Thr Leu Gly Ala Arg Leu Pro Gly Gly Val Glu
290 295 300

Cys Arg Phe Lys Arg Gly Pro Ala Met Ala Trp Glu Gly Glu Pro Val
305 310 315 320

Arg His Ala Leu Gly Gly Ser Leu Gly Asp Pro Arg Ala Arg Ala Ile
325 330 335

Ser Val Pro Leu Gly Gly His Val Gly Arg Phe Leu Gln Cys Arg Phe
340 345 350

Leu Phe Ala Gly Pro Trp Leu Leu Phe Ser Glu Ile Ser Phe Ile Ser
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Asp Val Val Asn Asp Ser Ser Asp Thr Phe Pro Pro Ala Pro Trp Trp
370 375 380

Pro Pro Gly Pro Pro Pro Thr Asn Phe Ser Ser Leu Glu Leu Glu Pro
385 390 395 400

Arg Gly Gln Gln Pro Val Ala Lys Ala Glu Gly Ser Pro Thr Ala Ile
405 410 415

Leu Ile Gly Cys Leu Val Ala Ile Ile Leu Leu Leu Leu Ile Ile
420 425 430

Ala Leu Met Leu Trp Arg Leu His Trp Arg Arg Leu Leu Ser Lys Ala
435 440 445

Glu Arg Arg Val Leu Glu Glu Glu Leu Thr Val His Leu Ser Val Pro
450 455 460

Gly Asp Thr Ile Leu Ile Asn Asn Arg Pro Gly Pro Arg Glu Pro Pro
465 470 475 480

Pro Tyr Gln Glu Pro Arg Pro Arg Gly Thr Pro Pro His Ser Ala Pro
485 490 495

Cys Val Pro Asn Gly Ser Ala Cys Ser Gly Asp Tyr Met Glu Pro Glu
500 505 510

Lys Pro Gly Ala Pro Leu Leu Pro Pro Pro Pro Gln Asn Ser Val Pro
515 520 525

His Tyr Ala Glu Ala Asp Ile Val Thr Leu Gln Gly Val Thr Gly Gly
530 535 540

Asn Thr Tyr Ala Val Pro Ala Leu Pro Pro Gly Ala Val Gly Asp Gly
545 550 555 560

Pro Pro Arg Val Asp Phe Pro Arg Ser Arg Leu Arg Phe Lys Glu Lys
565 570 575

Leu Gly Glu Gly Gln Phe Gly Glu Val His Leu Cys Glu Val Glu Asp
580 585 590

Pro Gln Asp Leu Val Ser Ser Asp Phe Pro Ile Ser Val His Lys Gly
595 600 605

His Pro Leu Leu Val Ala Val Lys Ile Leu Arg Pro Asp Ala Thr Lys
610 615 620

Asn Ala Arg Asn Asp Phe Leu Lys Glu Val Lys Ile Met Ser Arg Leu
625 630 635 640

Lys Asp Pro Asn Ile Ile Arg Leu Leu Gly Val Cys Val Gln Asp Asp
645 650 655

Pro Leu Cys Met Ile Thr Asp Tyr Met Glu Asn Gly Asp Leu Asn Gln
660 665 670

Phe Leu Ser Ala Arg Gln Leu Glu Asn Lys Ala Thr Gln Gly Leu Ser
675 680 685

Gly Asp Thr Glu Ser Asp Gln Gly Pro Thr Ile Ser Tyr Pro Met Leu
690 695 700

Leu His Val Gly Ala Gln Ile Ala Ser Gly Met Arg Tyr Leu Ala Thr
705 710 715 720

Leu Asn Phe Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu Val Gly
725 730 735

Glu Asn Phe Thr Ile Lys Ile Ala Asp Phe Gly Met Ser Arg Asn Leu
740 745 750

Tyr Ala Gly Asp Tyr Tyr Arg Val Gln Gly Arg Ala Val Leu Pro Ile

755					760					765						
Arg	Trp	Met	Ala	Trp	Glu	Cys	Ile	Leu	Met	Gly	Lys	Phe	Thr	Thr	Ala	
770					775					780						
Ser	Asp	Val	Trp	Ala	Phe	Gly	Val	Thr	Leu	Trp	Glu	Val	Leu	Met	Leu	
785					790					795					800	
Cys	Arg	Ser	Gln	Pro	Phe	Gly	Gln	Leu	Thr	Asp	Glu	Gln	Val	Ile	Glu	
805					810					815						
Asn	Ala	Gly	Glu	Phe	Phe	Arg	Asp	Gln	Gly	Arg	Gln	Val	Tyr	Leu	Ser	
820					825					830						
Arg	Pro	Pro	Ala	Cys	Pro	Gln	Thr	Leu	Tyr	Glu	Leu	Met	Leu	Arg	Cys	
835					840					845						
Trp	Ser	Arg	Glu	Pro	Glu	Gln	Arg	Pro	Pro	Phe	Ala	Gln	Leu	His	Arg	
850					855					860						
Phe	Leu	Ala	Asp	Asp	Ala	Leu	Asn	Thr	Val							
865					870											