

P2056 PCT BLN.ST25
SEQUENCE LISTING

<110> NEXIGEN GmbH

<120> Novel targets and compounds for therapeutic intervention of HIV infection

<130> P2056 PCT BLN

<150> EP 07015899.3

<151> 2007-08-13

<160> 52

<170> PatentIn version 3.3

<210> 1

<211> 624

<212> DNA

<213> human immunodeficiency virus (HIV)

<220>

<221> CDS

<222> (1)..(624)

<400> 1

atg gat tac aag gat gac gac gat aag agc ccg ggc gga tcc acc atg	48
Met Asp Tyr Lys Asp Asp Asp Asp Lys Ser Pro Gly Gly Ser Thr Met	
1 5 10 15	
gaa aac aga tgg cag gtg atg att gtg tgg caa gta gac agg atg agg	96
Glu Asn Arg Trp Gln Val Met Ile Val Trp Gln Val Asp Arg Met Arg	
20 25 30	
att aac aca tgg aaa aga tta gta aaa cac cat atg tat att tca agg	144
Ile Asn Thr Trp Lys Arg Leu Val Lys His His Met Tyr Ile Ser Arg	
35 40 45	
aaa gct aag gac tgg ttt tat aga cat cac tat gaa agt act aat cca	192
Lys Ala Lys Asp Trp Phe Tyr Arg His His Tyr Glu Ser Thr Asn Pro	
50 55 60	
aaa ata agt tca gaa gta cac atc cca cta ggg gat gct aaa tta gta	240
Lys Ile Ser Ser Glu Val His Ile Pro Leu Gly Asp Ala Lys Leu Val	
65 70 75 80	
ata aca aca tat tgg ggt ctg cat aca gga gaa aga gac tgg cat ttg	288
Ile Thr Thr Tyr Trp Gly Leu His Thr Gly Glu Arg Asp Trp His Leu	
85 90 95	
ggt cag gga gtc tcc ata gaa tgg agg aaa aag aga tat agc aca caa	336
Gly Gln Gly Val Ser Ile Glu Trp Arg Lys Lys Arg Tyr Ser Thr Gln	
100 105 110	
gta gac cct gac cta gca gac caa cta att cat ctg cac tat ttt gat	384
Val Asp Pro Asp Leu Ala Asp Gln Leu Ile His Leu His Tyr Phe Asp	
115 120 125	
tgt ttt tca gaa tct gct ata aga aat acc ata tta gga cgt ata gtt	432
Cys Phe Ser Glu Ser Ala Ile Arg Asn Thr Ile Leu Gly Arg Ile Val	
130 135 140	
agt cct agg tgt gaa tat caa gca gga cat aac aag gta gga tct cta	480
Ser Pro Arg Cys Glu Tyr Gln Ala Gly His Asn Lys Val Gly Ser Leu	
145 150 155 160	
cag tac ttg gca cta gca gca tta ata aaa cca aaa cag ata aag cca	528

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Gln Tyr Leu Ala Leu Ala Ala Leu Ile Lys Pro Lys Gln Ile Lys Pro
 165 170 175

cct ttg cct agt gtt agg aaa ctg aca gag gac aga tgg aac aag ccc 576
 Pro Leu Pro Ser Val Arg Lys Leu Thr Glu Asp Arg Trp Asn Lys Pro
 180 185 190

cag aag acc aag ggc cac aga ggg agc cat aca atg aat ggt cac tag 624
 Gln Lys Thr Lys Gly His Arg Gly Ser His Thr Met Asn Gly His
 195 200 205

<210> 2
 <211> 207
 <212> PRT
 <213> human immunodeficiency virus (HIV)

<400> 2

Met Asp Tyr Lys Asp Asp Asp Asp Lys Ser Pro Gly Gly Ser Thr Met
 1 5 10 15

Glu Asn Arg Trp Gln Val Met Ile Val Trp Gln Val Asp Arg Met Arg
 20 25 30

Ile Asn Thr Trp Lys Arg Leu Val Lys His His Met Tyr Ile Ser Arg
 35 40 45

Lys Ala Lys Asp Trp Phe Tyr Arg His His Tyr Glu Ser Thr Asn Pro
 50 55 60

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

Ile Thr Thr Tyr Trp Gly Leu His Thr Gly Glu Arg Asp Trp His Leu
 85 90 95

Gly Gln Gly Val Ser Ile Glu Trp Arg Lys Lys Arg Tyr Ser Thr Gln
 100 105 110

Val Asp Pro Asp Leu Ala Asp Gln Leu Ile His Leu His Tyr Phe Asp
 115 120 125

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

Ser Pro Arg Cys Glu Tyr Gln Ala Gly His Asn Lys Val Gly Ser Leu
 145 150 155 160

Gln Tyr Leu Ala Leu Ala Ala Leu Ile Lys Pro Lys Gln Ile Lys Pro
 165 170 175

Pro Leu Pro Ser Val Arg Lys Leu Thr Glu Asp Arg Trp Asn Lys Pro
 180 185 190

Gln Lys Thr Lys Gly His Arg Gly Ser His Thr Met Asn Gly His

195

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200 205

<210> 3
 <211> 8
 <212> PRT
 <213> artificial

<220>
 <223> SEQ ID NO. 3 (linker)

<400> 3

Gly Gly Gly Ser Gly Gly Gly Ser
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<210> 4
 <211> 171
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(171)
 <223> Phosphatase and tensin homolog (PTEN); clone R1P1-1/G3

<400> 4

Arg Arg Glu Asp Lys Phe Met Tyr Phe Glu Phe Pro Gln Pro Leu Pro
 1 5 10 15

Val Cys Gly Asp Ile Lys Val Glu Phe Phe His Lys Gln Asn Lys Met
 20 25 30

Leu Lys Lys Asp Lys Met Phe His Phe Trp Val Asn Thr Phe Phe Ile
 35 40 45

Pro Gly Pro Glu Glu Thr Ser Glu Lys Val Glu Asn Gly Ser Leu Cys
 50 55 60

Asp Gln Glu Ile Asp Ser Ile Cys Ser Ile Glu Arg Ala Asp Asn Asp
 65 70 75 80

Lys Glu Tyr Leu Val Leu Thr Leu Thr Lys Asn Asp Leu Asp Lys Ala
 85 90 95

Asn Lys Asp Lys Ala Asn Arg Tyr Phe Ser Pro Asn Phe Lys Val Lys
 100 105 110

Leu Tyr Phe Thr Lys Thr Val Glu Glu Pro Ser Asn Pro Glu Ala Ser
 115 120 125

Ser Ser Thr Ser Val Thr Pro Asp Val Ser Asp Asn Glu Pro Asp His
 130 135 140

Tyr Arg Tyr Ser Asp Thr Thr Asp Ser Asp Pro Glu Asn Glu Pro Phe
 145 150 155 160

Asp Glu Asp Gln His Thr Gln Ile Thr Lys Val
165 170

<210> 5
<211> 219
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(219)
<223> Phosphatase and tensin homolog (PTEN); clone R14P1-12/C5

<400> 5

His Leu Asp Tyr Arg Pro Val Ala Leu Leu Phe His Lys Met Met Phe
1 5 10 15

Glu Thr Ile Pro Met Phe Ser Gly Gly Thr Cys Asn Pro Gln Phe Val
20 25 30

Val Cys Gln Leu Lys Val Lys Ile Tyr Ser Ser Asn Ser Gly Pro Thr
35 40 45

Arg Arg Glu Asp Lys Phe Met Tyr Phe Glu Phe Pro Gln Pro Leu Pro
50 55 60

Val Cys Gly Asp Ile Lys Val Glu Phe Phe His Lys Gln Asn Lys Met
65 70 75 80

Leu Lys Lys Asp Lys Met Phe His Phe Trp Val Asn Thr Phe Phe Ile
85 90 95

Pro Gly Pro Glu Glu Thr Ser Glu Lys Val Glu Asn Gly Ser Leu Cys
100 105 110

Asp Gln Glu Ile Asp Ser Ile Cys Ser Ile Glu Arg Ala Asp Asn Asp
115 120 125

Lys Glu Tyr Leu Val Leu Thr Leu Thr Lys Asn Asp Leu Asp Lys Ala
130 135 140

Asn Lys Asp Lys Ala Asn Arg Tyr Phe Ser Pro Asn Phe Lys Val Lys
145 150 155 160

Leu Tyr Phe Thr Lys Thr Val Glu Glu Pro Ser Asn Pro Glu Ala Ser
165 170 175

Ser Ser Thr Ser Val Thr Pro Asp Val Ser Asp Asn Glu Pro Asp His
180 185 190

Tyr Arg Tyr Ser Asp Thr Thr Asp Ser Asp Pro Glu Asn Glu Pro Phe
Seite 4

195

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200 205

Asp Glu Asp Gln His Thr Gln Ile Thr Lys Val
210 215

<210> 6
<211> 143
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(143)
<223> HERC4 protein; clone-R8P1-4/D1

<400> 6

Ala Phe His Ala Gly Phe His Lys Val Cys Gly Gly Lys Val Leu Leu
1 5 10 15

Leu Phe Gln Pro Asn Glu Leu Gln Ala Met Val Ile Gly Asn Thr Asn
20 25 30

Tyr Asp Trp Lys Glu Leu Glu Lys Asn Thr Glu Tyr Lys Gly Glu Tyr
35 40 45

Trp Ala Glu His Pro Thr Ile Lys Ile Phe Trp Glu Val Phe His Glu
50 55 60

Leu Pro Leu Glu Lys Lys Lys Gln Phe Leu Leu Phe Leu Thr Gly Ser
65 70 75 80

Asp Arg Ile Pro Ile Leu Gly Met Lys Ser Leu Lys Leu Val Ile Gln
85 90 95

Ser Thr Gly Gly Gly Glu Glu Tyr Leu Pro Val Ser His Thr Cys Phe
100 105 110

Asn Leu Leu Asp Leu Pro Lys Tyr Thr Glu Lys Glu Thr Leu Arg Ser
115 120 125

Lys Leu Ile Gln Ala Ile Asp His Asn Glu Gly Phe Ser Leu Ile
130 135 140

<210> 7
<211> 143
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(143)
<223> HERC4 protein; clone 3R12P3-5/G9

<400> 7

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Ala Phe His Ala Gly Phe His Lys Val Cys Gly Gly Lys Val Leu Leu
 1 5 10 15
 Leu Phe Gln Pro Asn Glu Leu Gln Ala Met Val Ile Gly Asn Thr Asn
 20 25 30
 Tyr Asp Trp Lys Glu Leu Glu Lys Asn Thr Glu Tyr Lys Gly Glu Tyr
 35 40 45
 Trp Ala Glu His Pro Thr Ile Lys Ile Phe Trp Glu Val Phe His Glu
 50 55 60
 Leu Pro Leu Glu Lys Lys Lys Gln Phe Leu Leu Phe Leu Thr Gly Ser
 65 70 75 80
 Asp Arg Ile Pro Ile Leu Gly Met Lys Ser Leu Lys Leu Val Ile Gln
 85 90 95
 Ser Thr Gly Gly Gly Glu Glu Tyr Leu Pro Val Ser His Thr Cys Phe
 100 105 110
 Asn Leu Leu Asp Leu Pro Lys Tyr Thr Glu Lys Glu Thr Leu Arg Ser
 115 120 125
 Lys Leu Ile Gln Ala Ile Asp His Asn Glu Gly Phe Ser Leu Ile
 130 135 140

<210> 8
 <211> 257
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(257)
 <223> Target of myb1-like 1 (TOM1L1); clone 3R8P3-4/C11

<400> 8

Leu Ile Val Lys Lys Glu Phe Val Lys Glu Asn Leu Val Lys Leu Leu
 1 5 10 15
 Asn Pro Arg Tyr Asn Leu Pro Leu Asp Ile Gln Asn Arg Ile Leu Asn
 20 25 30
 Phe Ile Lys Thr Trp Ser Gln Gly Phe Pro Gly Gly Val Asp Val Ser
 35 40 45
 Glu Val Lys Glu Val Tyr Leu Asp Leu Val Lys Lys Gly Val Gln Phe
 50 55 60
 Pro Pro Ser Glu Ala Glu Ala Glu Thr Ala Arg Gln Glu Thr Ala Gln
 65 70 75 80

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Ile Ser Ser Asn Pro Pro Thr Ser Val Pro Thr Ala Pro Ala Leu Ser
85 90 95

Ser Val Ile Ala Pro Lys Asn Ser Thr Val Thr Leu Val Pro Glu Gln
100 105 110

Ile Gly Lys Leu His Ser Glu Leu Asp Met Val Lys Met Asn Val Arg
115 120 125

Val Met Ser Ala Ile Leu Met Glu Asn Thr Pro Gly Ser Glu Asn His
130 135 140

Glu Asp Ile Glu Leu Leu Gln Lys Leu Tyr Lys Thr Gly Arg Glu Met
145 150 155 160

Gln Glu Arg Ile Met Asp Leu Leu Val Val Val Glu Asn Glu Asp Val
165 170 175

Thr Val Glu Leu Ile Gln Val Asn Glu Asp Leu Asn Asn Ala Ile Leu
180 185 190

Gly Tyr Glu Arg Phe Thr Arg Asn Gln Gln Arg Ile Leu Glu Gln Asn
195 200 205

Lys Asn Gln Lys Glu Ala Thr Asn Thr Thr Ser Glu Pro Ser Ala Pro
210 215 220

Ser Gln Asp Leu Leu Asp Leu Ser Pro Ser Pro Arg Met Pro Arg Ala
225 230 235 240

Thr Leu Gly Glu Leu Asn Thr Met Asn Asn Gln Leu Ser Gly Leu Ser
245 250 255

Lys

<210> 9
<211> 407
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(407)
<223> Eukaryotic translation initiation factor 4A isotype 2 (EIF4A2);
clone P1-2-A9

<400> 9

Met Ser Gly Gly Ser Ala Asp Tyr Asn Arg Glu His Gly Gly Pro Glu
1 5 10 15

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Gly Met Asp Pro Asp Gly Val Ile Glu Ser Asn Trp Asn Glu Ile Val
20 25 30

Asp Asn Phe Asp Asp Met Asn Leu Lys Glu Ser Leu Leu Arg Gly Ile
35 40 45

Tyr Ala Tyr Gly Phe Glu Lys Pro Ser Ala Ile Gln Gln Arg Ala Ile
50 55 60

Ile Pro Cys Ile Lys Gly Tyr Asp Val Ile Ala Gln Ala Gln Ser Gly
65 70 75 80

Thr Gly Lys Thr Ala Thr Phe Ala Ile Ser Ile Leu Gln Gln Leu Glu
85 90 95

Ile Glu Phe Lys Glu Thr Gln Ala Leu Val Leu Ala Pro Thr Arg Glu
100 105 110

Leu Ala Gln Gln Ile Gln Lys Val Ile Leu Ala Leu Gly Asp Tyr Met
115 120 125

Gly Ala Thr Cys His Ala Cys Ile Gly Gly Thr Asn Val Arg Asn Glu
130 135 140

Met Gln Lys Leu Gln Ala Glu Ala Pro His Ile Val Val Gly Thr Pro
145 150 155 160

Gly Arg Val Phe Asp Met Leu Asn Arg Arg Tyr Leu Ser Pro Lys Trp
165 170 175

Ile Lys Met Phe Val Leu Asp Glu Ala Asp Glu Met Leu Ser Arg Gly
180 185 190

Phe Lys Asp Gln Ile Tyr Glu Ile Phe Gln Lys Leu Asn Thr Ser Ile
195 200 205

Gln Val Val Leu Leu Ser Ala Thr Met Pro Thr Asp Val Leu Glu Val
210 215 220

Thr Lys Lys Phe Met Arg Asp Pro Ile Arg Ile Leu Val Lys Lys Glu
225 230 235 240

Glu Leu Thr Leu Glu Gly Ile Lys Gln Phe Tyr Ile Asn Val Glu Arg
245 250 255

Glu Glu Trp Lys Leu Asp Thr Leu Cys Asp Leu Tyr Glu Thr Leu Thr
260 265 270

Ile Thr Gln Ala Val Ile Phe Leu Asn Thr Arg Arg Lys Val Asp Trp
275 280 285

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Leu Thr Glu Lys Met His Ala Arg Asp Phe Thr Val Ser Ala Leu His
290 295 300

Gly Asp Met Asp Gln Lys Glu Arg Asp Val Ile Met Arg Glu Phe Arg
305 310 315 320

Ser Gly Ser Ser Arg Val Leu Ile Thr Thr Asp Leu Leu Ala Arg Gly
325 330 335

Ile Asp Val Gln Gln Val Ser Leu Val Ile Asn Tyr Asp Leu Pro Thr
340 345 350

Asn Arg Glu Asn Tyr Ile His Arg Ile Gly Arg Gly Gly Arg Phe Gly
355 360 365

Arg Lys Gly Val Ala Ile Asn Phe Val Thr Glu Glu Asp Lys Arg Ile
370 375 380

Leu Arg Asp Ile Glu Thr Phe Tyr Asn Thr Thr Val Glu Glu Met Pro
385 390 395 400

Met Asn Val Ala Asp Leu Ile
405

<210> 10
<211> 172
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(172)
<223> Tumor protein, translationally controlled 1 (TPT1); clone
R5P1-4/A2

<400> 10

Met Ile Ile Tyr Arg Asp Leu Ile Ser His Asp Glu Met Phe Ser Asp
1 5 10 15

Ile Tyr Lys Ile Arg Glu Ile Ala Asp Gly Leu Cys Leu Glu Val Glu
20 25 30

Gly Lys Met Val Ser Arg Thr Glu Gly Asn Ile Asp Asp Ser Leu Ile
35 40 45

Gly Gly Asn Ala Ser Ala Glu Gly Pro Glu Gly Glu Gly Thr Glu Ser
50 55 60

Thr Val Ile Thr Gly Val Asp Ile Val Met Asn His His Leu Gln Glu
65 70 75 80

Thr Ser Phe Thr Lys Glu Ala Tyr Lys Lys Tyr Ile Lys Asp Tyr Met
85 90 95

Lys Ser Ile Lys Gly Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys
100 105 110

Pro Phe Met Thr Gly Ala Ala Glu Gln Ile Lys His Ile Leu Ala Asn
115 120 125

Phe Lys Asn Tyr Gln Phe Phe Ile Gly Glu Asn Met Asn Pro Asp Gly
130 135 140

Met Val Ala Leu Leu Asp Tyr Arg Glu Asp Gly Val Thr Pro Tyr Met
145 150 155 160

Ile Phe Phe Lys Asp Gly Leu Glu Met Glu Lys Cys
165 170

<210> 11
<211> 172
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(172)
<223> Tumor protein, translationally controlled 1 (TPT1); clone
2RP2-1/C4

<400> 11

Met Ile Ile Tyr Arg Asp Leu Ile Ser His Asp Glu Met Phe Ser Asp
1 5 10 15

Ile Tyr Lys Ile Arg Glu Ile Ala Asp Gly Leu Cys Leu Glu Val Glu
20 25 30

Gly Lys Met Val Ser Arg Thr Glu Gly Asn Ile Asp Asp Ser Leu Ile
35 40 45

Gly Gly Asn Ala Ser Ala Glu Gly Pro Glu Gly Glu Gly Thr Glu Ser
50 55 60

Thr Val Ile Thr Gly Val Asp Ile Val Met Asn His His Leu Gln Glu
65 70 75 80

Thr Ser Phe Thr Lys Glu Ala Tyr Lys Lys Tyr Ile Lys Asp Tyr Met
85 90 95

Lys Ser Ile Lys Gly Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys
100 105 110

Pro Phe Met Thr Gly Ala Ala Glu Gln Ile Lys His Ile Leu Ala Asn
115 120 125

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Phe Lys Asn Tyr Gln Phe Phe Ile Gly Glu Asn Met Asn Pro Asp Gly
130 135 140

Met Val Ala Leu Leu Asp Tyr Arg Glu Asp Gly Val Thr Pro Tyr Met
145 150 155 160

Ile Phe Phe Lys Asp Gly Leu Glu Met Glu Lys Cys
165 170

<210> 12
<211> 172
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(172)
<223> Tumor protein, translationally controlled 1 (TPT1); clone
3R1P3-1/B7

<400> 12

Met Ile Ile Tyr Arg Asp Leu Ile Ser His Asp Glu Met Phe Ser Asp
1 5 10 15

Ile Tyr Lys Ile Arg Glu Ile Ala Asp Gly Leu Cys Leu Glu Val Glu
20 25 30

Gly Lys Met Val Ser Arg Thr Glu Gly Asn Ile Asp Asp Ser Leu Ile
35 40 45

Gly Gly Asn Ala Ser Ala Glu Gly Pro Glu Gly Glu Gly Thr Glu Ser
50 55 60

Thr Val Ile Thr Gly Val Asp Ile Val Met Asn His His Leu Gln Glu
65 70 75 80

Thr Ser Phe Thr Lys Glu Ala Tyr Lys Lys Tyr Ile Lys Asp Tyr Met
85 90 95

Lys Ser Ile Lys Gly Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys
100 105 110

Pro Phe Met Thr Gly Ala Ala Glu Gln Ile Lys His Ile Leu Ala Asn
115 120 125

Phe Lys Asn Tyr Gln Phe Phe Ile Gly Glu Asn Met Asn Pro Asp Gly
130 135 140

Met Val Ala Leu Leu Asp Tyr Arg Glu Asp Gly Val Thr Pro Tyr Met
145 150 155 160

Ile Phe Phe Lys Asp Gly Leu Glu Met Glu Lys Cys
165 170

<210> 13
 <211> 172
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(172)
 <223> Tumor protein, translationally controlled 1 (TPT1); clone
 Psyx1-1-C3

<400> 13

Met Ile Ile Tyr Arg Asp Leu Ile Ser His Asp Glu Met Phe Ser Asp
 1 5 10 15

Ile Tyr Lys Ile Arg Glu Ile Ala Asp Gly Leu Cys Leu Glu Val Glu
 20 25 30

Gly Lys Met Val Ser Arg Thr Glu Gly Asn Ile Asp Asp Ser Leu Ile
 35 40 45

Gly Gly Asn Ala Ser Ala Glu Gly Pro Glu Gly Glu Gly Thr Glu Ser
 50 55 60

Thr Val Ile Thr Gly Val Asp Ile Val Met Asn His His Leu Gln Glu
 65 70 75 80

Thr Ser Phe Thr Lys Glu Ala Tyr Lys Lys Tyr Ile Lys Asp Tyr Met
 85 90 95

Lys Ser Ile Lys Gly Lys Leu Glu Glu Gln Arg Pro Glu Arg Val Lys
 100 105 110

Pro Phe Met Thr Gly Ala Ala Glu Gln Ile Lys His Ile Leu Ala Asn
 115 120 125

Phe Lys Asn Tyr Gln Phe Phe Ile Gly Glu Asn Met Asn Pro Asp Gly
 130 135 140

Met Val Ala Leu Leu Asp Tyr Arg Glu Asp Gly Val Thr Pro Tyr Met
 145 150 155 160

Ile Phe Phe Lys Asp Gly Leu Glu Met Glu Lys Cys
 165 170

<210> 14
 <211> 45
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE

<222> (1)..(45)

<223> Nucleoporin (NUP50); clone R16P1-12/G11

<400> 14

Val Leu Ile Val Cys Val Pro Asn Pro Pro Ile Asp Glu Lys Asn Ala
1 5 10 15

Thr Met Pro Val Thr Met Leu Ile Arg Val Lys Thr Ser Glu Asp Ala
20 25 30

Asp Glu Leu His Lys Ile Leu Leu Glu Lys Lys Asp Ala
35 40 45

<210> 15

<211> 168

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(168)

<223> CCCTC-binding factor (CTCF); clone R4P1-3/G10

<400> 15

Gln Ile Ile Thr Leu Gln Val Val Asn Met Glu Glu Gln Pro Ile Asn
1 5 10 15

Ile Gly Glu Leu Gln Leu Val Gln Val Pro Val Pro Val Thr Val Pro
20 25 30

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

Val Ser Lys Glu Gly Leu Ala Glu Ser Glu Pro Met Ile Cys His Thr
50 55 60

Leu Pro Leu Pro Glu Gly Phe Gln Val Val Lys Val Gly Ala Asn Gly
65 70 75 80

Glu Val Glu Thr Leu Glu Gln Gly Glu Leu Pro Pro Gln Glu Asp Pro
85 90 95

Ser Trp Gln Lys Asp Pro Asp Tyr Gln Pro Pro Ala Lys Lys Thr Lys
100 105 110

Lys Thr Lys Lys Ser Lys Leu Arg Tyr Thr Glu Glu Gly Lys Asp Val
115 120 125

Asp Val Ser Val Tyr Asp Phe Glu Glu Glu Gln Gln Glu Gly Leu Leu
130 135 140

Ser Glu Val Asn Ala Glu Lys Val Val Gly Asn Met Lys Pro Pro Lys
145 150 155 160

Pro Thr Lys Ile Lys Lys Lys Gly
165

<210> 16
<211> 162
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(162)
<223> Heterogeneous nuclear ribonucleoprotein U (HNRPU); clone
R12P1-5/H7

<400> 16

Lys Leu Leu Glu Gln Tyr Lys Glu Glu Ser Lys Lys Ala Leu Pro Pro
1 5 10 15

Glu Lys Lys Gln Asn Thr Gly Ser Lys Lys Ser Asn Lys Asn Lys Ser
20 25 30

Gly Lys Asn Gln Phe Asn Arg Gly Gly Gly His Arg Gly Arg Gly Gly
35 40 45

Phe Asn Met Arg Gly Gly Asn Phe Arg Gly Gly Ala Pro Gly Asn Arg
50 55 60

Gly Gly Tyr Asn Arg Arg Gly Asn Met Pro Gln Arg Gly Gly Gly Gly
65 70 75 80

Gly Gly Ser Gly Gly Ile Gly Tyr Pro Tyr Pro Arg Ala Pro Val Phe
85 90 95

Pro Gly Arg Gly Ser Tyr Ser Asn Arg Gly Asn Tyr Asn Arg Gly Gly
100 105 110

Met Pro Asn Arg Gly Asn Tyr Asn Gln Asn Phe Arg Gly Arg Gly Asn
115 120 125

Asn Arg Gly Tyr Lys Asn Gln Ser Gln Gly Tyr Asn Gln Trp Gln Gln
130 135 140

Gly Gln Phe Trp Gly Gln Lys Pro Trp Ser Gln His Tyr His Gln Gly
145 150 155 160

Tyr Tyr

<210> 17
<211> 171
<212> PRT
<213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(171)
 <223> Myosin regulatory light chain 3 (MRCL3); clone 3R11P3-5/G7

<400> 17

Met Ser Ser Lys Arg Thr Lys Thr Lys Thr Lys Lys Arg Pro Gln Arg
 1 5 10 15

Ala Thr Ser Asn Val Phe Ala Met Phe Asp Gln Ser Gln Ile Gln Glu
 20 25 30

Phe Lys Glu Ala Phe Asn Met Ile Asp Gln Asn Arg Asp Gly Phe Ile
 35 40 45

Asp Lys Glu Asp Leu His Asp Met Leu Ala Ser Leu Gly Lys Asn Pro
 50 55 60

Thr Asp Glu Tyr Leu Asp Ala Met Met Asn Glu Ala Pro Gly Pro Ile
 65 70 75 80

Asn Phe Thr Met Phe Leu Thr Met Phe Gly Glu Lys Leu Asn Gly Thr
 85 90 95

Asp Pro Glu Asp Val Ile Arg Asn Ala Phe Ala Cys Phe Asp Glu Glu
 100 105 110

Ala Thr Gly Thr Ile Gln Glu Asp Tyr Leu Arg Glu Leu Leu Thr Thr
 115 120 125

Met Gly Asp Arg Phe Thr Asp Glu Glu Val Asp Glu Leu Tyr Arg Glu
 130 135 140

Ala Pro Ile Asp Lys Lys Gly Asn Phe Asn Tyr Ile Glu Phe Thr Arg
 145 150 155 160

Ile Leu Lys His Gly Ala Lys Asp Lys Asp Asp
 165 170

<210> 18
 <211> 196
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(196)
 <223> Serologically defined colon cancer antigen 1 (SDCCAG1); clone
 2R6P2-6/B11

<400> 18

Glu Lys Tyr Lys Asp Gln Asp Glu Glu Asp Arg Glu Leu Ile Met Lys
 Seite 15

1 5 10 15

Leu Leu Gly Ser Ala Gly Ser Asn Lys Glu Glu Lys Gly Lys Lys Gly
20 25 30

Lys Lys Gly Lys Thr Lys Asp Glu Pro Val Lys Lys Gln Pro Gln Lys
35 40 45

Pro Arg Gly Gly Gln Arg Val Ser Asp Asn Ile Lys Lys Glu Thr Pro
50 55 60

Phe Leu Glu Val Ile Thr His Glu Leu Gln Asp Phe Ala Val Asp Asp
65 70 75 80

Pro His Asp Asp Lys Glu Glu Gln Asp Leu Asp Gln Gln Gly Asn Glu
85 90 95

Glu Asn Leu Phe Asp Ser Leu Thr Gly Gln Pro His Pro Glu Asp Val
100 105 110

Leu Leu Phe Ala Ile Pro Ile Cys Ala Pro Tyr Thr Thr Met Thr Asn
115 120 125

Tyr Lys Tyr Lys Val Lys Leu Thr Pro Gly Val Gln Lys Lys Gly Lys
130 135 140

Ala Ala Lys Thr Ala Leu Asn Ser Phe Met His Ser Lys Glu Ala Thr
145 150 155 160

Ala Arg Glu Lys Asp Leu Phe Arg Ser Val Lys Asp Thr Asp Leu Ser
165 170 175

Arg Asn Ile Pro Gly Lys Val Lys Val Ser Ala Pro Asn Leu Leu Asn
180 185 190

Val Lys Arg Lys
195

<210> 19
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<212> PRT
<213> Homo sapiens

<220>
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<223> Serologically defined colon cancer antigen 1 (SDCCAG1); clone
3R16P3-6/F11

<400> 19

Glu Lys Tyr Lys Asp Gln Asp Glu Glu Asp Arg Glu Leu Ile Met Lys
1 5 10 15

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Leu Leu Gly Ser Ala Gly Ser Asn Lys Glu Glu Lys Gly Lys Lys Gly
20 25 30

Lys Lys Gly Lys Thr Lys Asp Glu Pro Val Lys Lys Gln Pro Gln Lys
35 40 45

Pro Arg Gly Gly Gln Arg Val Ser Asp Asn Ile Lys Lys Glu Thr Pro
50 55 60

Phe Leu Glu Val Ile Thr His Glu Leu Gln Asp Phe Ala Val Asp Asp
65 70 75 80

Pro His Asp Asp Lys Glu Glu Gln Asp Leu Asp Gln Gln Gly Asn Glu
85 90 95

Glu Asn Leu Phe Asp Ser Leu Thr Gly Gln Pro His Pro Glu Asp Val
100 105 110

Leu Leu Phe Ala Ile Pro Ile Cys Ala Pro Tyr Thr Thr Met Thr Asn
115 120 125

Tyr Lys Tyr Lys Val Lys Leu Thr Pro Gly Val Gln Lys Lys Gly Lys
130 135 140

Ala Ala Lys Thr Ala Leu Asn Ser Phe Met His Ser Lys Glu Ala Thr
145 150 155 160

Ala Arg Glu Lys Asp Leu Phe Arg Ser Val Lys Asp Thr Asp Leu Ser
165 170 175

Arg Asn Ile Pro Gly Lys Val Lys Val Ser Ala Pro Asn Leu Leu Asn
180 185 190

Val Lys Arg Lys
195

<210> 20
<211> 150
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(150)
<223> Prostaglandin E synthase 3 (PTGES3); clone 2R4P2-3/A10

<400> 20

Arg Arg Asp Tyr Val Phe Ile Glu Phe Cys Val Glu Asp Ser Lys Asp
1 5 10 15

Val Asn Val Asn Phe Glu Lys Ser Lys Leu Thr Phe Ser Cys Leu Gly
20 25 30

P 2056 PCT BLN ST25 (2)

Gly Ser Asp Asn Phe Lys His Leu Asn Glu Ile Asp Leu Phe His Cys
 35 40 45

Ile Asp Pro Asn Asp Ser Lys His Lys Arg Thr Asp Arg Ser Ile Leu
 50 55 60

Cys Cys Leu Arg Lys Gly Glu Ser Gly Gln Ser Trp Pro Arg Leu Thr
 65 70 75 80

Lys Glu Arg Ala Lys Leu Asn Trp Leu Ser Val Asp Phe Asn Asn Trp
 85 90 95

Lys Asp Trp Glu Asp Asp Ser Asp Glu Asp Met Ser Asn Phe Asp Arg
 100 105 110

Phe Ser Glu Met Met Asn Asn Met Gly Gly Asp Glu Asp Val Asp Leu
 115 120 125

Pro Glu Val Asp Gly Ala Asp Asp Asp Ser Gln Asp Ser Asp Asp Glu
 130 135 140

Lys Met Pro Asp Leu Glu
 145 150

<210> 21
 <211> 724
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(724)
 <223> Heat shock protein 90 (HSP90); clone 3R13P3-5/H6

<400> 21

Met Pro Glu Glu Val His His Gly Glu Glu Glu Val Glu Thr Phe Ala
 1 5 10 15

Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu Ile Ile Asn Thr Phe
 20 25 30

Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu Ile Ser Asn Ala Ser
 35 40 45

Asp Ala Leu Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp Pro Ser Lys
 50 55 60

Leu Asp Ser Gly Lys Glu Leu Lys Ile Asp Ile Ile Pro Asn Pro Gln
 65 70 75 80

Glu Arg Thr Leu Thr Leu Val Asp Thr Gly Ile Gly Met Thr Lys Ala

Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Lys Ala
100 105 110

Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile Ser Met Ile Gly Gln
115 120 125

Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Glu Lys Val Val
130 135 140

Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr Ala Trp Glu Ser Ser
145 150 155 160

Ala Gly Gly Ser Phe Thr Val Arg Ala Asp His Gly Glu Pro Ile Gly
165 170 175

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

Leu Glu Glu Arg Arg Val Lys Glu Val Val Lys Lys His Ser Gln Phe
195 200 205

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

Ile Ser Asp Asp Glu Ala Glu Glu Glu Lys Gly Glu Lys Glu Glu Glu
225 230 235 240

Asp Lys Asp Asp Glu Glu Lys Pro Lys Ile Glu Asp Val Gly Ser Asp
245 250 255

Glu Glu Asp Asp Ser Gly Lys Asp Lys Lys Lys Lys Thr Lys Lys Ile
260 265 270

Lys Glu Lys Tyr Ile Asp Gln Glu Glu Leu Asn Lys Thr Lys Pro Ile
275 280 285

Trp Thr Arg Asn Pro Asp Asp Ile Thr Gln Glu Glu Tyr Gly Glu Phe
290 295 300

Tyr Lys Ser Leu Thr Asn Asp Trp Glu Asp His Leu Ala Val Lys His
305 310 315 320

Phe Ser Val Glu Gly Gln Leu Glu Phe Arg Ala Leu Leu Phe Ile Pro
325 330 335

Arg Arg Ala Pro Phe Asp Leu Phe Glu Asn Lys Lys Lys Lys Asn Asn
340 345 350

Ile Lys Leu Tyr Val Arg Arg Val Phe Ile Met Asp Ser Cys Asp Glu
Seite 19

355

P 2056 PCT BLN ST25 (2)
360 365

Leu Ile Pro Glu Tyr Leu Asn Phe Ile Arg Gly Val Val Asp Ser Glu
370 375 380

Asp Leu Pro Leu Asn Ile Ser Arg Glu Met Leu Gln Gln Ser Lys Ile
385 390 395 400

Leu Lys Val Ile Arg Lys Asn Ile Val Lys Lys Cys Leu Glu Leu Phe
405 410 415

Ser Glu Leu Ala Glu Asp Lys Glu Asn Tyr Lys Lys Phe Tyr Glu Ala
420 425 430

Phe Ser Lys Asn Leu Lys Leu Gly Ile His Glu Asp Ser Thr Asn Arg
435 440 445

Arg Arg Leu Ser Glu Leu Leu Arg Tyr His Thr Ser Gln Ser Gly Asp
450 455 460

Glu Met Thr Ser Leu Ser Glu Tyr Val Ser Arg Met Lys Glu Thr Gln
465 470 475 480

Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser Lys Glu Gln Val Ala Asn
485 490 495

Ser Ala Phe Val Glu Arg Val Arg Lys Arg Gly Phe Glu Val Val Tyr
500 505 510

Met Thr Glu Pro Ile Asp Glu Tyr Cys Val Gln Gln Leu Lys Glu Phe
515 520 525

Asp Gly Lys Ser Leu Val Ser Val Thr Lys Glu Gly Leu Glu Leu Pro
530 535 540

Glu Asp Glu Glu Glu Lys Lys Lys Met Glu Glu Ser Lys Ala Lys Phe
545 550 555 560

Glu Asn Leu Cys Lys Leu Met Lys Glu Ile Leu Asp Lys Lys Val Glu
565 570 575

Lys Val Thr Ile Ser Asn Arg Leu Val Ser Ser Pro Cys Cys Ile Val
580 585 590

Thr Ser Thr Tyr Gly Trp Thr Ala Asn Met Glu Arg Ile Met Lys Ala
595 600 605

Gln Ala Leu Arg Asp Asn Ser Thr Met Gly Tyr Met Met Ala Lys Lys
610 615 620

His Leu Glu Ile Asn Pro Asp His Pro Ile Val Glu Thr Leu Arg Gln
Seite 20

P 2056 PCT BLN ST25 (2)
 Val Ser Ala Lys Asn Ala Leu Glu Ser Tyr Ala Phe Asn Met Lys Ser
 115 120 125

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

Lys Lys Val Leu Asp Lys Cys Gln Glu Val Ile Ser Trp Leu Asp Ala
 145 150 155 160

Asn Thr Leu Ala Glu Lys Asp Glu Phe Glu His Lys Arg Lys Glu Leu
 165 170 175

Glu Gln Val Cys Asn Pro Ile Ile Ser Gly Leu Tyr Gln Gly Ala Gly
 180 185 190

Gly Pro Gly Pro Gly Gly Phe Gly Ala Gln Gly Pro Lys Gly Gly Ser
 195 200 205

Gly Ser Gly Pro Thr Ile Glu Glu Val Asp
 210 215

<210> 23
 <211> 198
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(198)
 <223> Heat shock protein A1 (HSPA1); clone R10P1-5/D6

<400> 23

Glu Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Arg Phe
 1 5 10 15

Glu Leu Ser Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu
 20 25 30

Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Thr Ala Thr
 35 40 45

Asp Lys Ser Thr Gly Lys Ala Asn Lys Ile Thr Ile Thr Asn Asp Lys
 50 55 60

Gly Arg Leu Ser Lys Glu Glu Ile Glu Arg Met Val Gln Glu Ala Glu
 65 70 75 80

Lys Tyr Lys Ala Glu Asp Glu Val Gln Arg Glu Arg Val Ser Ala Lys
 85 90 95

Asn Ala Leu Glu Ser Tyr Ala Phe Asn Met Lys Ser Ala Val Glu Asp
 100 105 110

P 2056 PCT BLN ST25 (2)

Glu Gly Leu Lys Gly Lys Ile Ser Glu Ala Asp Lys Lys Lys Val Leu
115 120 125

Asp Lys Cys Gln Glu Val Ile Ser Trp Leu Asp Ala Asn Thr Leu Ala
130 135 140

Glu Lys Asp Glu Phe Glu His Lys Arg Lys Glu Leu Glu Gln Val Cys
145 150 155 160

Asn Pro Ile Ile Ser Gly Leu Tyr Gln Gly Ala Gly Gly Pro Gly Pro
165 170 175

Gly Gly Phe Gly Ala Gln Gly Pro Lys Gly Gly Ser Gly Ser Gly Pro
180 185 190

Thr Ile Glu Glu Val Asp
195

<210> 24
<211> 190
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(190)
<223> Heat shock protein A1 (HSPA1); clone R15P1-12/C9
<400> 24

Asp Asn Asn Leu Leu Gly Arg Phe Glu Leu Ser Gly Ile Pro Pro Ala
1 5 10 15

Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe Asp Ile Asp Ala Asn
20 25 30

Gly Ile Leu Asn Val Thr Ala Thr Asp Lys Ser Thr Gly Lys Ala Asn
35 40 45

Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg Leu Ser Lys Glu Glu Ile
50 55 60

Glu Arg Met Val Gln Glu Ala Glu Lys Tyr Lys Ala Glu Asp Glu Val
65 70 75 80

Gln Arg Glu Arg Val Ser Ala Lys Asn Ala Leu Glu Ser Tyr Ala Phe
85 90 95

Asn Met Lys Ser Ala Val Glu Asp Glu Gly Leu Lys Gly Lys Ile Ser
100 105 110

Glu Ala Asp Lys Lys Lys Val Leu Asp Lys Cys Gln Glu Val Ile Ser
115 120 125

P 2056 PCT BLN ST25 (2)

Trp Leu Asp Ala Asn Thr Leu Ala Glu Lys Asp Glu Phe Glu His Lys
130 135 140

Arg Lys Glu Leu Glu Gln Val Cys Asn Pro Ile Ile Ser Gly Leu Tyr
145 150 155 160

Gln Gly Ala Gly Gly Pro Gly Pro Gly Gly Phe Gly Ala Gln Gly Pro
165 170 175

Lys Gly Gly Ser Gly Ser Gly Pro Thr Ile Glu Glu Val Asp
180 185 190

<210> 25
<211> 197
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(197)
<223> Heat shock protein A1 (HSPA1); clone 2R8P2-8/E1

<400> 25

Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Arg Phe Glu
1 5 10 15

Leu Ser Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val
20 25 30

Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Thr Ala Thr Asp
35 40 45

Lys Ser Thr Gly Lys Ala Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly
50 55 60

Arg Leu Ser Lys Glu Glu Ile Glu Arg Met Val Gln Glu Ala Glu Lys
65 70 75 80

Tyr Lys Ala Glu Asp Glu Val Gln Arg Glu Arg Val Ser Ala Lys Asn
85 90 95

Ala Leu Glu Ser Tyr Ala Phe Asn Met Lys Ser Ala Val Glu Asp Glu
100 105 110

Gly Leu Lys Gly Lys Ile Ser Glu Ala Asp Lys Lys Lys Val Leu Asp
115 120 125

Lys Cys Gln Glu Val Ile Ser Trp Leu Asp Ala Asn Thr Leu Ala Glu
130 135 140

Lys Asp Glu Phe Glu His Lys Arg Lys Glu Leu Glu Gln Val Cys Asn
Seite 24

[illegible]

P 2056 PCT BLN ST25 (2)
 Asn Thr Leu Ala Glu Lys Asp Glu Phe Glu His Lys Arg Lys Glu Leu
 165 170 175

Glu Gln Val Cys Asn Pro Ile Ile Ser Gly Leu Tyr Gln Gly Ala Gly
 180 185 190

Gly Pro Gly Pro Gly Gly Phe Gly Ala Gln Gly Pro Lys Gly Gly Ser
 195 200 205

Gly Ser Gly Pro Thr Ile Glu Glu Val Asp
 210 215

<210> 27
 <211> 223
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(223)
 <223> Heat shock protein A1 (HSPA1); clone P1-1-C4

<400> 27

Thr Ile Pro Thr Lys Gln Thr Gln Ile Phe Thr Thr Tyr Ser Asp Asn
 1 5 10 15

Gln Pro Gly Val Leu Ile Gln Val Tyr Glu Gly Glu Arg Ala Met Thr
 20 25 30

Lys Asp Asn Asn Leu Leu Gly Arg Phe Glu Leu Ser Gly Ile Pro Pro
 35 40 45

Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe Asp Ile Asp Ala
 50 55 60

Asn Gly Ile Leu Asn Val Thr Ala Thr Asp Lys Ser Thr Gly Lys Ala
 65 70 75 80

Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg Leu Ser Lys Glu Glu
 85 90 95

Ile Glu Arg Met Val Gln Glu Ala Glu Lys Tyr Lys Ala Glu Asp Glu
 100 105 110

Val Gln Arg Glu Arg Val Ser Ala Lys Asn Ala Leu Glu Ser Tyr Ala
 115 120 125

Phe Asn Met Lys Ser Ala Val Glu Asp Glu Gly Leu Lys Gly Lys Ile
 130 135 140

Ser Glu Ala Asp Lys Lys Lys Val Leu Asp Lys Cys Gln Glu Val Ile
 145 150 155 160

P 2056 PCT BLN ST25 (2)

Ser Trp Leu Asp Ala Asn Thr Leu Ala Glu Lys Asp Glu Phe Glu His
165 170 175

Lys Arg Lys Glu Leu Glu Gln Val Cys Asn Pro Ile Ile Ser Gly Leu
180 185 190

Tyr Gln Gly Ala Gly Gly Pro Gly Pro Gly Gly Phe Gly Ala Gln Gly
195 200 205

Pro Lys Gly Gly Ser Gly Ser Gly Pro Thr Ile Glu Glu Val Asp
210 215 220

<210> 28
<211> 218
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(218)
<223> Heat shock protein A1 (HSPA1); clone P1-2-A12

<400> 28

Gln Thr Gln Ile Phe Thr Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu
1 5 10 15

Ile Gln Val Tyr Glu Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu
20 25 30

Leu Gly Arg Phe Glu Leu Ser Gly Ile Pro Pro Ala Pro Arg Gly Val
35 40 45

Pro Gln Ile Glu Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn
50 55 60

Val Thr Ala Thr Asp Lys Ser Thr Gly Lys Ala Asn Lys Ile Thr Ile
65 70 75 80

Thr Asn Asp Lys Gly Arg Leu Ser Lys Glu Glu Ile Glu Arg Met Val
85 90 95

Gln Glu Ala Glu Lys Tyr Lys Ala Glu Asp Glu Val Gln Arg Glu Arg
100 105 110

Val Ser Ala Lys Asn Ala Leu Glu Ser Tyr Ala Phe Asn Met Lys Ser
115 120 125

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

Lys Lys Val Leu Asp Lys Cys Gln Glu Val Ile Ser Trp Leu Asp Ala
145 150 155 160

P 2056 PCT BLN ST25 (2)

Asn Thr Leu Ala Glu Lys Asp Glu Phe Glu His Lys Arg Lys Glu Leu
165 170 175

Glu Gln Val Cys Asn Pro Ile Ile Ser Gly Leu Tyr Gln Gly Ala Gly
180 185 190

Gly Pro Gly Pro Gly Gly Phe Gly Ala Gln Gly Pro Lys Gly Gly Ser
195 200 205

Gly Ser Gly Pro Thr Ile Glu Glu Val Asp
210 215

<210> 29
<211> 215
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(215)
<223> Heat shock protein A5 (HSPA5); clone R3P1-3/G6

<400> 29

Asn Thr Val Val Pro Thr Lys Lys Ser Gln Ile Phe Ser Thr Ala Ser
1 5 10 15

Asp Asn Gln Pro Thr Val Thr Ile Lys Val Tyr Glu Gly Glu Arg Pro
20 25 30

Leu Thr Lys Asp Asn His Leu Leu Gly Thr Phe Asp Leu Thr Gly Ile
35 40 45

Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe Glu Ile
50 55 60

Asp Val Asn Gly Ile Leu Arg Val Thr Ala Glu Asp Lys Gly Thr Gly
65 70 75 80

Asn Lys Asn Lys Ile Thr Ile Thr Asn Asp Gln Asn Arg Leu Thr Pro
85 90 95

Glu Glu Ile Glu Arg Met Val Asn Asp Ala Glu Lys Phe Ala Glu Glu
100 105 110

Asp Lys Lys Leu Lys Glu Arg Ile Asp Thr Arg Asn Glu Leu Glu Ser
115 120 125

Tyr Ala Tyr Ser Leu Lys Asn Gln Ile Gly Asp Lys Glu Lys Leu Gly
130 135 140

Gly Lys Leu Ser Ser Glu Asp Lys Glu Thr Met Glu Lys Ala Val Glu
Seite 28

[illegible]

P 2056 PCT BLN ST25 (2)
 Gly Lys Leu Ser Ser Glu Asp Lys Glu Thr Met Glu Lys Ala Val Glu
 145 150 155 160
 Glu Lys Ile Glu Trp Leu Glu Ser His Gln Asp Ala Asp Ile Glu Asp
 165 170 175
 Phe Lys Ala Lys Lys Lys Glu Leu Glu Glu Ile Val Gln Pro Ile Ile
 180 185 190
 Ser Lys Leu Tyr Gly Ser Ala Gly Pro Pro Pro Thr Gly Glu Glu Asp
 195 200 205
 Thr Ala Glu Lys Asp Glu Leu
 210 215

<210> 31
 <211> 215
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(215)
 <223> Heat shock protein A5 (HSPA5); clone R13P1-8/C8

<400> 31

Asn Thr Val Val Pro Thr Lys Lys Ser Gln Ile Phe Ser Thr Ala Ser
 1 5 10 15
 Asp Asn Gln Pro Thr Val Thr Ile Lys Val Tyr Glu Gly Glu Arg Pro
 20 25 30
 Leu Thr Lys Asp Asn His Leu Leu Gly Thr Phe Asp Leu Thr Gly Ile
 35 40 45
 Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe Glu Ile
 50 55 60
 Asp Val Asn Gly Ile Leu Arg Val Thr Ala Glu Asp Lys Gly Thr Gly
 65 70 75 80
 Asn Lys Asn Lys Ile Thr Ile Thr Asn Asp Gln Asn Arg Leu Thr Pro
 85 90 95
 Glu Glu Ile Glu Arg Met Val Asn Asp Ala Glu Lys Phe Ala Glu Glu
 100 105 110
 Asp Lys Lys Leu Lys Glu Arg Ile Asp Thr Arg Asn Glu Leu Glu Ser
 115 120 125
 Tyr Ala Tyr Ser Leu Lys Asn Gln Ile Gly Asp Lys Glu Lys Leu Gly
 130 135 140

P 2056 PCT BLN ST25 (2)

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

Glu Lys Ile Glu Trp Leu Glu Ser His Gln Asp Ala Asp Ile Glu Asp
165 170 175

Phe Lys Ala Lys Lys Lys Glu Leu Glu Glu Ile Val Gln Pro Ile Ile
180 185 190

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

Thr Ala Glu Lys Asp Glu Leu
210 215

<210> 32
<211> 234
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(234)
<223> Heat shock protein A8 (HSPA8); clone 2R1P2-1/B9

<400> 32

Leu Ile Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe
1 5 10 15

Thr Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val Tyr Glu
20 25 30

Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Glu
35 40 45

Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val
50 55 60

Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp
65 70 75 80

Lys Ser Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly
85 90 95

Arg Leu Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys
100 105 110

Tyr Lys Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn
115 120 125

Ser Leu Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu
130 135 140

P 2056 PCT BLN ST25 (2)

Lys Leu Gln Gly Lys Ile Asn Asp Glu Asp Lys Gln Lys Ile Leu Asp
145 150 155 160

Lys Cys Asn Glu Ile Ile Asn Trp Leu Asp Lys Asn Gln Thr Ala Glu
165 170 175

Lys Glu Glu Phe Glu His Gln Gln Lys Glu Leu Glu Lys Val Cys Asn
180 185 190

Pro Ile Ile Thr Lys Leu Tyr Gln Ser Ala Gly Gly Met Pro Gly Gly
195 200 205

Met Pro Gly Gly Phe Pro Gly Gly Gly Ala Pro Pro Ser Gly Gly Ala
210 215 220

Ser Ser Gly Pro Thr Ile Glu Glu Val Asp
225 230

<210> 33
<211> 183
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(183)
<223> Heat shock protein A8 (HSPA8); clone 3R3P3-2/D2

<400> 33

Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe Asp
1 5 10 15

Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp Lys Ser Thr
20 25 30

Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg Leu Ser
35 40 45

Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys Tyr Lys Ala
50 55 60

Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn Ser Leu Glu
65 70 75 80

Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu Lys Leu Gln
85 90 95

Gly Lys Ile Asn Asp Glu Asp Lys Gln Lys Ile Leu Asp Lys Cys Asn
100 105 110

Glu Ile Ile Asn Trp Leu Asp Lys Asn Gln Thr Ala Glu Lys Glu Glu
Seite 32

115 P 2056 PCT BLN ST25 (2)
120 125

Phe Glu His Gln Gln Lys Glu Leu Glu Lys Val Cys Asn Pro Ile Ile
130 135 140

Thr Lys Leu Tyr Gln Ser Ala Gly Gly Met Pro Gly Gly Met Pro Gly
145 150 155 160

Gly Phe Pro Gly Gly Gly Ala Pro Pro Ser Gly Gly Ala Ser Ser Gly
165 170 175

Pro Thr Ile Glu Glu Val Asp
180

<210> 34
<211> 221
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(221)
<223> Heat shock protein A8 (HSPA8); clone P1-2-A10

<400> 34

Gln Thr Phe Thr Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln
1 5 10 15

Val Tyr Glu Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly
20 25 30

Lys Phe Glu Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln
35 40 45

Ile Glu Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser
50 55 60

Ala Val Asp Lys Ser Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn
65 70 75 80

Asp Lys Gly Arg Leu Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu
85 90 95

Ala Glu Lys Tyr Lys Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser
100 105 110

Ser Lys Asn Ser Leu Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val
115 120 125

Glu Asp Glu Lys Leu Gln Gly Lys Ile Asn Asp Glu Asp Lys Gln Lys
130 135 140

P 2056 PCT BLN ST25 (2)
 Ile Leu Asp Lys Cys Asn Glu Ile Ile Asn Trp Leu Asp Lys Asn Gln
 145 150 155 160

Thr Ala Glu Lys Glu Glu Phe Glu His Gln Gln Lys Glu Leu Glu Lys
 165 170 175

Val Cys Asn Pro Ile Ile Thr Lys Leu Tyr Gln Ser Ala Gly Gly Met
 180 185 190

Pro Gly Gly Met Pro Gly Gly Phe Pro Gly Gly Gly Ala Pro Pro Ser
 195 200 205

Gly Gly Ala Ser Ser Gly Pro Thr Ile Glu Glu Val Asp
 210 215 220

<210> 35
 <211> 378
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(378)
 <223> Heat shock protein H1 (HSPH1); clone 3R2P3-1/C8

<400> 35

Lys Val Arg Val Asn Thr His Gly Ile Phe Thr Ile Ser Thr Ala Ser
 1 5 10 15

Met Val Glu Lys Val Pro Thr Glu Glu Asn Glu Met Ser Ser Glu Ala
 20 25 30

Asp Met Glu Cys Leu Asn Gln Arg Pro Pro Glu Asn Pro Asp Thr Asp
 35 40 45

Lys Asn Val Gln Gln Asp Asn Ser Glu Ala Gly Thr Gln Pro Gln Val
 50 55 60

Gln Thr Asp Ala Gln Gln Thr Ser Gln Ser Pro Pro Ser Pro Glu Leu
 65 70 75 80

Thr Ser Glu Glu Asn Lys Ile Pro Asp Ala Asp Lys Ala Asn Glu Lys
 85 90 95

Lys Val Asp Gln Pro Pro Glu Ala Lys Lys Pro Lys Ile Lys Val Val
 100 105 110

Asn Val Glu Leu Pro Ile Glu Ala Asn Leu Val Trp Gln Leu Gly Lys
 115 120 125

Asp Leu Leu Asn Met Tyr Ile Glu Thr Glu Gly Lys Met Ile Met Gln
 130 135 140

P 2056 PCT BLN ST25 (2)

Asp Lys Leu Glu Lys Glu Arg Asn Asp Ala Lys Asn Ala Val Glu Glu
145 150 155 160

Tyr Val Tyr Glu Phe Arg Asp Lys Leu Cys Gly Pro Tyr Glu Lys Phe
165 170 175

Ile Cys Glu Gln Asp His Gln Asn Phe Leu Arg Leu Leu Thr Glu Thr
180 185 190

Glu Asp Trp Leu Tyr Glu Glu Gly Glu Asp Gln Ala Lys Gln Ala Tyr
195 200 205

Val Asp Lys Leu Glu Glu Leu Met Lys Ile Gly Thr Pro Val Lys Val
210 215 220

Arg Phe Gln Glu Ala Glu Glu Arg Pro Lys Met Phe Glu Glu Leu Gly
225 230 235 240

Gln Arg Leu Gln His Tyr Ala Lys Ile Ala Ala Asp Phe Arg Asn Lys
245 250 255

Asp Glu Lys Tyr Asn His Ile Asp Glu Ser Glu Met Lys Lys Val Glu
260 265 270

Lys Ser Val Asn Glu Val Met Glu Trp Met Asn Asn Val Met Asn Ala
275 280 285

Gln Ala Lys Lys Ser Leu Asp Gln Asp Pro Val Val Arg Ala Gln Glu
290 295 300

Ile Lys Thr Lys Ile Lys Glu Leu Asn Asn Thr Cys Glu Pro Val Val
305 310 315 320

Thr Gln Pro Lys Pro Lys Ile Glu Ser Pro Lys Leu Glu Arg Thr Pro
325 330 335

Asn Gly Pro Asn Ile Asp Lys Lys Glu Glu Asp Leu Glu Asp Lys Asn
340 345 350

Asn Phe Gly Ala Glu Pro Pro His Gln Asn Gly Glu Cys Tyr Pro Asn
355 360 365

Glu Lys Asn Ser Val Asn Met Asp Leu Asp
370 375

<210> 36
<211> 431
<212> PRT
<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(431)

<223> Cold shock domain-containing protein 1 (CSDE1); clone 3R15P3-6/C2

<400> 36

Arg Asp Val Arg Met Phe Phe His Phe Ser Glu Ile Leu Asp Gly Asn
1 5 10 15

Gln Leu His Ile Ala Asp Glu Val Glu Phe Thr Val Val Pro Asp Met
20 25 30

Leu Ser Ala Gln Arg Asn His Ala Ile Arg Ile Lys Lys Leu Pro Lys
35 40 45

Gly Thr Val Ser Phe His Ser His Ser Asp His Arg Phe Leu Gly Thr
50 55 60

Val Glu Lys Glu Ala Thr Phe Ser Asn Pro Lys Thr Thr Ser Pro Asn
65 70 75 80

Lys Gly Lys Glu Lys Glu Ala Glu Asp Gly Ile Ile Ala Tyr Asp Asp
85 90 95

Cys Gly Val Lys Leu Thr Ile Ala Phe Gln Ala Lys Asp Val Glu Gly
100 105 110

Ser Thr Ser Pro Gln Ile Gly Asp Lys Val Glu Phe Ser Ile Ser Asp
115 120 125

Lys Gln Arg Pro Gly Gln Gln Val Ala Thr Cys Val Arg Leu Leu Gly
130 135 140

Arg Asn Ser Asn Ser Lys Arg Leu Leu Gly Tyr Val Ala Thr Leu Lys
145 150 155 160

Asp Asn Phe Gly Phe Ile Glu Thr Ala Asn His Asp Lys Glu Ile Phe
165 170 175

Phe His Tyr Ser Glu Phe Ser Gly Asp Val Asp Ser Leu Glu Leu Gly
180 185 190

Asp Met Val Glu Tyr Ser Leu Ser Lys Gly Lys Gly Asn Lys Val Ser
195 200 205

Ala Glu Lys Val Asn Lys Thr His Ser Val Asn Gly Ile Thr Glu Glu
210 215 220

Ala Asp Pro Thr Ile Tyr Ser Gly Lys Val Ile Arg Pro Leu Arg Ser
225 230 235 240

Val Asp Pro Thr Gln Thr Glu Tyr Gln Gly Met Ile Glu Ile Val Glu
245 250 255

P 2056 PCT BLN ST25 (2)

Glu Gly Asp Met Lys Gly Glu Val Tyr Pro Phe Gly Ile Val Gly Met
260 265 270

Ala Asn Lys Gly Asp Cys Leu Gln Lys Gly Glu Ser Val Lys Phe Gln
275 280 285

Leu Cys Val Leu Gly Gln Asn Ala Gln Thr Met Ala Tyr Asn Ile Thr
290 295 300

Pro Leu Arg Arg Ala Thr Val Glu Cys Val Lys Asp Gln Phe Gly Phe
305 310 315 320

Ile Asn Tyr Glu Val Gly Asp Ser Lys Lys Leu Phe Phe His Val Lys
325 330 335

Glu Val Gln Asp Gly Ile Glu Leu Gln Ala Gly Asp Glu Val Glu Phe
340 345 350

Ser Val Ile Leu Asn Gln Arg Thr Gly Lys Cys Ser Ala Cys Asn Val
355 360 365

Trp Arg Val Cys Glu Gly Pro Lys Ala Val Ala Ala Pro Arg Pro Asp
370 375 380

Arg Leu Val Asn Arg Leu Lys Asn Ile Thr Leu Asp Asp Ala Ser Ala
385 390 395 400

Pro Arg Leu Met Val Leu Arg Gln Pro Arg Gly Pro Asp Asn Ser Met
405 410 415

Gly Phe Gly Ala Glu Arg Lys Ile Arg Gln Ala Gly Val Ile Asp
420 425 430

<210> 37
<211> 32
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<220>
<221> misc_feature
<222> (1)..(32)
<223> Primer (Vif/Rsr)

<400> 37
ttttcggacc ggaaaacaga tggcaggtga tg

32

<210> 38
<211> 37
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<220>
<221> misc_feature
<222> (1)..(37)
<223> Primer (Vif/Not)

<400> 38
aaatatgcgg ccgcctatct ggggcttggt ccatctg 37

<210> 39
<211> 36
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<220>
<221> misc_feature
<222> (1)..(36)
<223> Primer (Vif/Bam)

<400> 39
cgcgatcca ccatggaaaa cagatggcag gtgatg 36

<210> 40
<211> 30
<212> DNA
<213> artificial sequence

<220>
<223> oligonucleotide

<220>
<221> misc_feature
<222> (1)..(30)
<223> Primer (Vif/Xho)

<400> 40
ccgctcgagc tagtgacct tcattgtatg 30

<210> 41
<211> 336
<212> PRT
<213> Homo sapiens

<400> 41

Gly Ile Ala Tyr Val Glu Phe Val Asp Val Ser Ser Val Pro Leu Ala
1 5 10 15

Ile Gly Leu Thr Gly Gln Arg Val Leu Gly Val Pro Ile Ile Val Gln
20 25 30

Ala Ser Gln Ala Glu Lys Asn Arg Ala Ala Ala Met Ala Asn Asn Leu
35 40 45

P 2056 PCT BLN ST25 (2)

Gln Lys Gly Ser Ala Gly Pro Met Arg Leu Tyr Val Gly Ser Leu His
50 55 60

Phe Asn Ile Thr Glu Asp Met Leu Arg Gly Ile Phe Glu Pro Phe Gly
65 70 75 80

Arg Ile Glu Ser Ile Gln Leu Met Met Asp Ser Glu Thr Gly Arg Ser
85 90 95

Lys Gly Tyr Gly Phe Ile Thr Phe Ser Asp Ser Glu Cys Ala Lys Lys
100 105 110

Ala Leu Glu Gln Leu Asn Gly Phe Glu Leu Ala Gly Arg Pro Met Lys
115 120 125

Val Gly His Val Thr Glu Arg Thr Asp Ala Ser Ser Ala Ser Ser Phe
130 135 140

Leu Asp Ser Asp Glu Leu Glu Arg Thr Gly Ile Asp Leu Gly Thr Thr
145 150 155 160

Gly Arg Leu Gln Leu Met Ala Arg Leu Ala Glu Gly Thr Gly Leu Gln
165 170 175

Ile Pro Pro Ala Ala Gln Gln Ala Leu Gln Met Ser Gly Ser Leu Ala
180 185 190

Phe Gly Ala Val Ala Glu Phe Ser Phe Val Ile Asp Leu Gln Thr Arg
195 200 205

Leu Ser Gln Gln Thr Glu Ala Ser Ala Leu Ala Ala Ala Ala Ser Val
210 215 220

Gln Pro Leu Ala Thr Gln Cys Phe Gln Leu Ser Asn Met Phe Asn Pro
225 230 235 240

Gln Thr Glu Glu Glu Val Gly Trp Asp Thr Glu Ile Lys Asp Asp Val
245 250 255

Ile Glu Glu Cys Asn Lys His Gly Gly Val Ile His Ile Tyr Val Asp
260 265 270

Lys Asn Ser Ala Gln Gly Asn Val Tyr Val Lys Cys Pro Ser Ile Ala
275 280 285

Ala Ala Ile Ala Ala Val Asn Ala Leu His Gly Arg Trp Phe Ala Gly
290 295 300

Lys Met Ile Thr Ala Ala Tyr Val Pro Leu Pro Thr Tyr His Asn Leu
305 310 315 320

P 2056 PCT BLN ST25 (2)

Phe Pro Asp Ser Met Thr Ala Thr Gln Leu Leu Val Pro Ser Arg Arg
325 330 335

<210> 42
<211> 453
<212> PRT
<213> homo sapiens
<400> 42

Gly Leu Phe His Leu Lys Ser Ser Leu Arg Lys Asn Ser Ser Ala Leu
1 5 10 15

His Ser Leu Leu Lys Arg Val Val Ser Thr Phe Ser Lys Asp Thr Gly
20 25 30

Glu Leu Ala Ser Ser Phe Leu Glu Phe Met Arg Gln Ile Leu Asn Ser
35 40 45

Asp Thr Ile Gly Cys Cys Gly Asp Asp Asn Gly Leu Met Glu Val Glu
50 55 60

Gly Ala His Thr Ser Arg Thr Met Ser Ile Asn Ala Ala Glu Leu Lys
65 70 75 80

Gln Leu Leu Gln Ser Lys Glu Glu Ser Pro Glu Asn Leu Phe Leu Glu
85 90 95

Leu Glu Lys Leu Val Leu Glu His Ser Lys Asp Asp Asp Asn Leu Asp
100 105 110

Ser Leu Leu Asp Ser Val Val Gly Leu Lys Gln Met Leu Glu Ser Ser
115 120 125

Gly Asp Pro Leu Pro Leu Ser Asp Gln Asp Val Glu Pro Val Leu Ser
130 135 140

Ala Pro Glu Ser Leu Gln Asn Leu Phe Asn Asn Arg Thr Ala Tyr Val
145 150 155 160

Leu Ala Asp Val Met Asp Asp Gln Leu Lys Ser Met Trp Phe Thr Pro
165 170 175

Phe Gln Ala Glu Glu Ile Asp Thr Asp Leu Asp Leu Val Lys Val Asp
180 185 190

Leu Ile Glu Leu Ser Glu Lys Cys Cys Ser Asp Phe Asp Leu His Ser
195 200 205

Glu Leu Glu Arg Ser Phe Leu Ser Glu Pro Ser Ser Pro Gly Arg Thr
210 215 220

P 2056 PCT BLN ST25 (2)

Lys Thr Thr Lys Gly Phe Lys Leu Gly Lys His Lys His Glu Thr Phe
225 230 235 240

Ile Thr Ser Ser Gly Lys Ser Glu Tyr Ile Glu Pro Ala Lys Arg Ala
245 250 255

His Val Val Pro Pro Pro Arg Gly Arg Gly Arg Gly Gly Phe Gly Gln
260 265 270

Gly Ile Arg Pro His Asp Ile Phe Arg Gln Arg Lys Gln Asn Thr Ser
275 280 285

Arg Pro Pro Ser Met His Val Asp Asp Phe Val Ala Ala Glu Ser Lys
290 295 300

Glu Val Val Pro Gln Asp Gly Ile Pro Pro Pro Lys Arg Pro Leu Lys
305 310 315 320

Val Ser Gln Lys Ile Ser Ser Arg Gly Gly Phe Ser Gly Asn Arg Gly
325 330 335

Gly Arg Gly Ala Phe His Ser Gln Asn Arg Phe Phe Thr Pro Pro Ala
340 345 350

Ser Lys Gly Asn Tyr Ser Arg Arg Glu Gly Thr Arg Gly Ser Ser Trp
355 360 365

Ser Ala Gln Asn Thr Pro Arg Gly Asn Tyr Asn Glu Ser Arg Gly Gly
370 375 380

Gln Ser Asn Phe Asn Arg Gly Pro Leu Pro Pro Leu Arg Pro Leu Ser
385 390 395 400

Ser Thr Gly Tyr Arg Pro Ser Pro Arg Asp Arg Ala Ser Arg Gly Arg
405 410 415

Gly Gly Leu Gly Pro Ser Trp Ala Ser Ala Asn Ser Gly Ser Gly Gly
420 425 430

Ser Arg Gly Lys Phe Val Ser Gly Gly Ser Gly Arg Gly Arg His Val
435 440 445

Arg Ser Phe Thr Arg
450

<210> 43
<211> 162
<212> PRT
<213> Homo sapiens

<400> 43

Val Leu Leu Met Phe Asn Glu Gly Asp Gly Phe Ser Phe Glu Glu Ile
Seite 41

1 5 10 15
 Lys Met Ala Thr Gly Ile Glu Asp Ser Glu Leu Arg Arg Thr Leu Gln
 20 25 30
 Ser Leu Ala Cys Gly Lys Ala Arg Val Leu Ile Lys Ser Pro Lys Gly
 35 40 45
 Lys Glu Val Glu Asp Gly Asp Lys Phe Ile Phe Asn Gly Glu Phe Lys
 50 55 60
 His Lys Leu Phe Arg Ile Lys Ile Asn Gln Ile Gln Met Lys Glu Thr
 65 70 75 80
 Val Glu Glu Gln Val Ser Thr Thr Glu Arg Val Phe Gln Asp Arg Gln
 85 90 95
 Tyr Gln Ile Asp Ala Ala Ile Val Arg Ile Met Lys Met Arg Lys Thr
 100 105 110
 Leu Gly His Asn Leu Leu Val Ser Glu Leu Tyr Asn Gln Leu Lys Phe
 115 120 125
 Pro Val Lys Pro Gly Asp Leu Lys Lys Arg Ile Glu Ser Leu Ile Asp
 130 135 140
 Arg Asp Tyr Met Glu Arg Asp Lys Asp Asn Pro Asn Gln Tyr His Tyr
 145 150 155 160

Val Ala

<210> 44
 <211> 346
 <212> PRT
 <213> Homo sapiens

<400> 44

Val Phe Leu Val Asp Phe Glu Phe Gly Cys Ala Thr Ser Tyr Ile Leu
 1 5 10 15
 Pro Glu Leu Gln Asp Gly Leu Ser Phe His Val Ser Ile Ala Lys Asn
 20 25 30
 Asp Thr Ile Tyr Ile Leu Gly Gly His Ser Leu Ala Asn Asn Ile Arg
 35 40 45
 Pro Ala Asn Leu Tyr Arg Ile Arg Val Asp Leu Pro Leu Gly Ser Pro
 50 55 60
 Ala Val Asn Cys Thr Val Leu Pro Gly Gly Ile Ser Val Ser Ser Ala
 65 70 75 80

P 2056 PCT BLN ST25 (2)

Ile Leu Thr Gln Thr Asn Asn Asp Glu Phe Val Ile Val Gly Gly Tyr
85 90 95

Gln Leu Glu Asn Gln Lys Arg Met Ile Cys Asn Ile Ile Ser Leu Glu
100 105 110

Asp Asn Lys Ile Glu Ile Arg Glu Met Glu Thr Pro Asp Trp Thr Pro
115 120 125

Asp Ile Lys His Ser Lys Ile Trp Phe Gly Ser Asn Met Gly Asn Gly
130 135 140

Thr Val Phe Leu Gly Ile Pro Gly Asp Asn Lys Gln Val Val Ser Glu
145 150 155 160

Gly Phe Tyr Phe Tyr Met Leu Lys Cys Ala Glu Asp Asp Thr Asn Glu
165 170 175

Glu Gln Thr Thr Phe Thr Asn Ser Gln Thr Ser Thr Glu Asp Pro Gly
180 185 190

Asp Ser Thr Pro Phe Glu Asp Ser Glu Glu Phe Cys Phe Ser Ala Glu
195 200 205

Ala Asn Ser Phe Asp Gly Asp Asp Glu Phe Asp Thr Tyr Asn Glu Asp
210 215 220

Asp Glu Glu Asp Glu Ser Glu Thr Gly Tyr Trp Ile Thr Cys Cys Pro
225 230 235 240

Thr Cys Asp Val Asp Ile Asn Thr Trp Val Pro Phe Tyr Ser Thr Glu
245 250 255

Leu Asn Lys Pro Ala Met Ile Tyr Cys Ser His Gly Asp Gly His Trp
260 265 270

Val His Ala Gln Cys Met Asp Leu Ala Glu Arg Thr Leu Ile His Leu
275 280 285

Ser Ala Gly Ser Asn Lys Tyr Tyr Cys Asn Glu His Val Glu Ile Ala
290 295 300

Arg Ala Leu His Thr Pro Gln Arg Val Leu Pro Leu Lys Lys Pro Pro
305 310 315 320

Met Lys Ser Leu Arg Lys Lys Gly Ser Gly Lys Ile Leu Thr Pro Ala
325 330 335

Lys Lys Ser Phe Leu Arg Arg Leu Phe Asp
340 345

<210> 45
 <211> 547
 <212> PRT
 <213> Homo sapiens

<400> 45

Asn Ser Gly Cys Cys Thr Met Ala Ser Met Gly Thr Leu Ala Phe Asp
 1 5 10 15

Glu Tyr Gly Arg Pro Phe Leu Ile Ile Lys Asp Gln Asp Arg Lys Ser
 20 25 30

Arg Leu Met Gly Leu Glu Ala Leu Lys Ser His Ile Met Ala Ala Lys
 35 40 45

Ala Val Ala Asn Thr Met Arg Thr Ser Leu Gly Pro Asn Gly Leu Asp
 50 55 60

Lys Met Met Val Asp Lys Asp Gly Asp Val Thr Val Thr Asn Asp Gly
 65 70 75 80

Ala Thr Ile Leu Ser Met Met Asp Val Asp His Gln Ile Ala Lys Leu
 85 90 95

Met Val Glu Leu Ser Lys Ser Gln Asp Asp Glu Ile Gly Asp Gly Thr
 100 105 110

Thr Gly Val Val Val Leu Ala Gly Ala Leu Leu Glu Glu Ala Glu Gln
 115 120 125

Leu Leu Asp Arg Gly Ile His Pro Ile Arg Ile Ala Asp Gly Tyr Glu
 130 135 140

Gln Ala Ala Arg Val Ala Ile Glu His Leu Asp Lys Ile Ser Asp Ser
 145 150 155 160

Val Leu Val Asp Ile Lys Asp Thr Glu Pro Leu Ile Gln Thr Ala Lys
 165 170 175

Thr Thr Leu Gly Ser Lys Val Val Asn Ser Cys His Arg Gln Met Ala
 180 185 190

Glu Ile Ala Val Asn Ala Val Leu Thr Val Ala Asp Met Glu Arg Arg
 195 200 205

Asp Val Asp Phe Glu Leu Ile Lys Val Glu Gly Lys Val Gly Gly Arg
 210 215 220

Leu Glu Asp Thr Lys Leu Ile Lys Gly Val Ile Val Asp Lys Asp Phe
 225 230 235 240

P 2056 PCT BLN ST25 (2)

Ser His Pro Gln Met 245 Pro Lys Lys Val Glu 250 Asp Ala Lys Ile Ala 255 Ile
 Leu Thr Cys 260 Pro Phe Glu Pro Pro Lys 265 Pro Lys Thr Lys His 270 Lys Leu
 Asp Val 275 Thr Ser Val Glu Asp Tyr 280 Lys Ala Leu Gln Lys 285 Tyr Glu Lys
 Glu Lys 290 Phe Glu Glu Met Ile 295 Gln Gln Ile Lys Glu 300 Thr Gly Ala Asn
 Leu 305 Ala Ile Cys Gln Trp 310 Gly Phe Asp Asp Glu 315 Ala Asn His Leu Leu 320
 Leu Gln Asn Asn 325 Leu Pro Ala Val Arg Trp 330 Val Gly Gly Pro Glu 335 Ile
 Glu Leu Ile 340 Ala Ile Ala Thr Gly Gly 345 Arg Ile Val Pro Arg 350 Phe Ser
 Glu Leu Thr 355 Ala Glu Lys Leu Gly 360 Phe Ala Gly Leu Val 365 Gln Glu Ile
 Ser Phe 370 Gly Thr Thr Lys Asp 375 Lys Met Leu Val Ile 380 Glu Gln Cys Lys
 Asn 385 Ser Arg Ala Val Thr 390 Ile Phe Ile Arg Gly 395 Gly Asn Lys Met Ile 400
 Ile Glu Glu Ala Lys 405 Arg Ser Leu His Asp 410 Ala Leu Cys Val Ile 415 Arg
 Asn Leu Ile 420 Arg Asp Asn Arg Val Val 425 Tyr Gly Gly Gly Ala 430 Ala Glu
 Ile Ser Cys 435 Ala Leu Ala Val Ser 440 Gln Glu Ala Asp Lys 445 Cys Pro Thr
 Leu Glu 450 Gln Tyr Ala Met Arg 455 Ala Phe Ala Asp Ala 460 Leu Glu Val Ile
 Pro Met 465 Ala Leu Ser Glu 470 Asn Ser Gly Met Asn 475 Pro Ile Gln Thr Met 480
 Thr Glu Val 485 Arg Ala Arg Gln Val Lys Glu 490 Met Asn Pro Ala Leu Gly 495
 Ile Asp Cys 500 Leu His Lys Gly Thr Asn 505 Asp Met Lys Gln Gln 510 His Val

P 2056 PCT BLN ST25 (2)

Ile Glu Thr Leu Ile Gly Lys Lys Gln Gln Ile Ser Leu Ala Thr Gln
515 520 525

Met Val Arg Met Ile Leu Lys Ile Asp Asp Ile Arg Lys Pro Gly Glu
530 535 540

Ser Glu Glu
545

<210> 46
<211> 533
<212> PRT
<213> Homo sapiens

<400> 46

Ile Met Ser Lys Leu Ala Gly Glu Ser Glu Ser Asn Leu Arg Lys Ala
1 5 10 15

Phe Glu Glu Ala Glu Lys Asn Ala Pro Ala Ile Ile Phe Ile Asp Glu
20 25 30

Leu Asp Ala Ile Ala Pro Lys Arg Glu Lys Thr His Gly Glu Val Glu
35 40 45

Arg Arg Ile Val Ser Gln Leu Leu Thr Leu Met Asp Gly Leu Lys Gln
50 55 60

Arg Ala His Val Ile Val Met Ala Ala Thr Asn Arg Pro Asn Ser Ile
65 70 75 80

Asp Pro Ala Leu Arg Arg Phe Gly Arg Phe Asp Arg Glu Val Asp Ile
85 90 95

Gly Ile Pro Asp Ala Thr Gly Arg Leu Glu Ile Leu Gln Ile His Thr
100 105 110

Lys Asn Met Lys Leu Ala Asp Asp Val Asp Leu Glu Gln Val Ala Asn
115 120 125

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

Ala Ala Leu Gln Ala Ile Arg Lys Lys Met Asp Leu Ile Asp Leu Glu
145 150 155 160

Asp Glu Thr Ile Asp Ala Glu Val Met Asn Ser Leu Ala Val Thr Met
165 170 175

Asp Asp Phe Arg Trp Ala Leu Ser Gln Ser Asn Pro Ser Ala Leu Arg
180 185 190

P 2056 PCT BLN ST25 (2)
 Glu Thr Val Val Glu Val Pro Gln Val Thr Trp Glu Asp Ile Gly Gly
 195 200 205
 Leu Glu Asp Val Lys Arg Glu Leu Gln Glu Leu Val Gln Tyr Pro Val
 210 215 220
 Glu His Pro Asp Lys Phe Leu Lys Phe Gly Met Thr Pro Ser Lys Gly
 225 230 235 240
 Val Leu Phe Tyr Gly Pro Pro Gly Cys Gly Lys Thr Leu Leu Ala Lys
 245 250 255
 Ala Ile Ala Asn Glu Cys Gln Ala Asn Phe Ile Ser Ile Lys Gly Pro
 260 265 270
 Glu Leu Leu Thr Met Trp Phe Gly Glu Ser Glu Ala Asn Val Arg Glu
 275 280 285
 Ile Phe Asp Lys Ala Arg Gln Ala Ala Pro Cys Val Leu Phe Phe Asp
 290 295 300
 Glu Leu Asp Ser Ile Ala Lys Ala Arg Gly Gly Asn Ile Gly Asp Gly
 305 310 315 320
 Gly Gly Ala Ala Asp Arg Val Ile Asn Gln Ile Leu Thr Glu Met Asp
 325 330 335
 Gly Met Ser Thr Lys Lys Asn Val Phe Ile Ile Gly Ala Thr Asn Arg
 340 345 350
 Pro Asp Ile Ile Asp Pro Ala Ile Leu Arg Pro Gly Arg Leu Asp Gln
 355 360 365
 Leu Ile Tyr Ile Pro Leu Pro Asp Glu Lys Ser Arg Val Ala Ile Leu
 370 375 380
 Lys Ala Asn Leu Arg Lys Ser Pro Val Ala Lys Asp Val Asp Leu Glu
 385 390 395 400
 Phe Leu Ala Lys Met Thr Asn Gly Phe Ser Gly Ala Asp Leu Thr Glu
 405 410 415
 Ile Cys Gln Arg Ala Cys Lys Leu Ala Ile Arg Glu Ser Ile Glu Ser
 420 425 430
 Glu Ile Arg Arg Glu Arg Glu Arg Gln Thr Asn Pro Ser Ala Met Glu
 435 440 445
 Val Glu Glu Asp Asp Pro Val Pro Glu Ile Arg Arg Asp His Phe Glu
 450 455 460

P 2056 PCT BLN ST25 (2)

Glu Ala Met Arg Phe Ala Arg Arg Ser Val Ser Asp Asn Asp Ile Arg
465 470 475 480

Lys Tyr Glu Met Phe Ala Gln Thr Leu Gln Gln Ser Arg Gly Phe Gly
485 490 495

Ser Phe Arg Phe Pro Ser Gly Asn Gln Gly Gly Ala Gly Pro Ser Gln
500 505 510

Gly Ser Gly Gly Gly Thr Gly Gly Ser Val Tyr Thr Glu Asp Asn Asp
515 520 525

Asp Asp Leu Tyr Gly
530

<210> 47
<211> 184
<212> PRT
<213> Homo sapiens

<400> 47

Glu Ile Pro Val Val Ala Ile Arg Thr Ala Lys Gly Glu Lys Phe Val
1 5 10 15

Met Gln Glu Glu Phe Ser Arg Asp Gly Lys Ala Leu Glu Arg Phe Leu
20 25 30

Gln Asp Tyr Phe Asp Gly Asn Leu Lys Arg Tyr Leu Lys Ser Glu Pro
35 40 45

Ile Pro Glu Ser Asn Asp Gly Pro Val Lys Val Val Val Ala Glu Asn
50 55 60

Phe Asp Glu Ile Val Asn Asn Glu Asn Lys Asp Val Leu Ile Glu Phe
65 70 75 80

Tyr Ala Pro Trp Cys Gly His Cys Lys Asn Leu Glu Pro Lys Tyr Lys
85 90 95

Glu Leu Gly Glu Lys Leu Ser Lys Asp Pro Asn Ile Val Ile Ala Lys
100 105 110

Met Asp Ala Thr Ala Asn Asp Val Pro Ser Pro Tyr Glu Val Arg Gly
115 120 125

Phe Pro Thr Ile Tyr Phe Ser Pro Ala Asn Lys Lys Leu Asn Pro Lys
130 135 140

Lys Tyr Glu Gly Gly Arg Glu Leu Ser Asp Phe Ile Ser Tyr Leu Gln
145 150 155 160

Arg Glu Ala Thr Asn Pro Pro Val Ile Gln Glu Glu Lys Pro Lys Lys
Seite 48

165

170

175

Lys Lys Lys Ala Gln Glu Asp Leu
180

<210> 48
<211> 514
<212> PRT
<213> Homo sapiens

<400> 48

Ile Ile Gln Lys Leu Asn Ile Val Asn Lys Lys Glu Lys Ala Thr Gly
1 5 10 15

Arg Glu Val Thr His Ile Gln Phe Thr Ser Trp Pro Asp His Gly Val
20 25 30

Pro Glu Asp Pro His Leu Leu Leu Lys Leu Arg Arg Arg Val Asn Ala
35 40 45

Phe Ser Asn Phe Phe Ser Gly Pro Ile Val Val His Cys Ser Ala Gly
50 55 60

Val Gly Arg Thr Gly Thr Tyr Ile Gly Ile Asp Ala Met Leu Glu Gly
65 70 75 80

Leu Glu Ala Glu Asn Lys Val Asp Val Tyr Gly Tyr Val Val Lys Leu
85 90 95

Arg Arg Gln Arg Cys Leu Met Val Gln Val Glu Ala Gln Tyr Ile Leu
100 105 110

Ile His Gln Ala Leu Val Glu Tyr Asn Gln Phe Gly Glu Thr Glu Val
115 120 125

Asn Leu Ser Glu Leu His Pro Tyr Leu His Asn Met Lys Lys Arg Asp
130 135 140

Pro Pro Ser Glu Pro Ser Pro Leu Glu Ala Glu Phe Gln Arg Leu Pro
145 150 155 160

Ser Tyr Arg Ser Trp Arg Thr Gln His Ile Gly Asn Gln Glu Glu Asn
165 170 175

Lys Ser Lys Asn Arg Asn Ser Asn Val Ile Pro Tyr Asp Tyr Asn Arg
180 185 190

Val Pro Leu Lys His Glu Leu Glu Met Ser Lys Glu Ser Glu His Asp
195 200 205

Ser Asp Glu Ser Ser Asp Asp Asp Ser Asp Ser Glu Glu Pro Ser Lys
210 215 220

P 2056 PCT BLN ST25 (2)

Tyr Ile Asn Ala Ser Phe Ile Met Ser Tyr Trp Lys Pro Glu Val Met
 225 230 235 240
 Ile Ala Ala Gln Gly Pro Leu Lys Glu Thr Ile Gly Asp Phe Trp Gln
 245 250 255
 Met Ile Phe Gln Arg Lys Val Lys Val Ile Val Met Leu Thr Glu Leu
 260 265 270
 Lys His Gly Asp Gln Glu Ile Cys Ala Gln Tyr Trp Gly Glu Gly Lys
 275 280 285
 Gln Thr Tyr Gly Asp Ile Glu Val Asp Leu Lys Asp Thr Asp Lys Ser
 290 295 300
 Ser Thr Tyr Thr Leu Arg Val Phe Glu Leu Arg His Ser Lys Arg Lys
 305 310 315 320
 Asp Ser Arg Thr Val Tyr Gln Tyr Gln Tyr Thr Asn Trp Ser Val Glu
 325 330 335
 Gln Leu Pro Ala Glu Pro Lys Glu Leu Ile Ser Met Ile Gln Val Val
 340 345 350
 Lys Gln Lys Leu Pro Gln Lys Asn Ser Ser Glu Gly Asn Lys His His
 355 360 365
 Lys Ser Thr Pro Leu Leu Ile His Cys Arg Asp Gly Ser Gln Gln Thr
 370 375 380
 Gly Ile Phe Cys Ala Leu Leu Asn Leu Leu Glu Ser Ala Glu Thr Glu
 385 390 395 400
 Glu Val Val Asp Ile Phe Gln Val Val Lys Ala Leu Arg Lys Ala Arg
 405 410 415
 Pro Gly Met Val Ser Thr Phe Glu Gln Tyr Gln Phe Leu Tyr Asp Val
 420 425 430
 Ile Ala Ser Thr Tyr Pro Ala Gln Asn Gly Gln Val Lys Lys Asn Asn
 435 440 445
 His Gln Glu Asp Lys Ile Glu Phe Asp Asn Glu Val Asp Lys Val Lys
 450 455 460
 Gln Asp Ala Asn Cys Val Asn Pro Leu Gly Ala Pro Glu Lys Leu Pro
 465 470 475 480
 Glu Ala Lys Glu Gln Ala Glu Gly Ser Glu Pro Thr Ser Gly Thr Glu
 485 490 495

P 2056 PCT BLN ST25 (2)

Gly Pro Glu His Ser Val Asn Gly Pro Ala Ser Pro Ala Leu Asn Gln
500 505 510

Gly ser

<210> 49
<211> 262
<212> PRT
<213> Homo sapiens

<400> 49

Leu Ser Thr Leu Val Ala Asp Leu Gln Leu Ile Asp Phe Glu Gly Lys
1 5 10 15

Lys Asp Val Ala Gln Ile Phe Asn Asn Ile Leu Arg Arg Gln Ile Gly
20 25 30

Thr Arg Thr Pro Thr Val Glu Tyr Ile Cys Thr Gln Gln Asn Ile Leu
35 40 45

Phe Met Leu Leu Lys Gly Tyr Glu Ser Pro Glu Ile Ala Leu Asn Cys
50 55 60

Gly Ile Met Leu Arg Glu Cys Ile Arg His Glu Pro Leu Ala Lys Ile
65 70 75 80

Ile Leu Trp Ser Glu Gln Phe Tyr Asp Phe Phe Arg Tyr Val Glu Met
85 90 95

Ser Thr Phe Asp Ile Ala Ser Asp Ala Phe Ala Thr Phe Lys Asp Leu
100 105 110

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

Asp Arg Phe Phe Ser Glu Tyr Glu Lys Leu Leu His Ser Glu Asn Tyr
130 135 140

Val Thr Lys Arg Gln Ser Leu Lys Leu Leu Gly Glu Leu Leu Leu Asp
145 150 155 160

Arg His Asn Phe Thr Ile Met Thr Lys Tyr Ile Ser Lys Pro Glu Asn
165 170 175

Leu Lys Leu Met Met Asn Leu Leu Arg Asp Lys Ser Arg Asn Ile Gln
180 185 190

Phe Glu Ala Phe His Val Phe Lys Val Phe Val Ala Asn Pro Asn Lys
195 200 205

P 2056 PCT BLN ST25 (2)

Thr Gln Pro Ile Leu Asp Ile Leu Leu Lys Asn Gln Ala Lys Leu Ile
210 215 220

Glu Phe Leu Ser Lys Phe Gln Asn Asp Arg Thr Glu Asp Glu Gln Phe
225 230 235 240

Asn Asp Glu Lys Thr Tyr Leu Val Lys Gln Ile Arg Asp Leu Lys Arg
245 250 255

Pro Ala Gln Gln Glu Ala
260

<210> 50
<211> 222
<212> PRT
<213> Homo sapiens

<400> 50

Val Lys Ser Arg Leu Glu Val Ser Asp Asp Leu Glu Asn Val Cys Asn
1 5 10 15

Trp Val Val Asp Thr Cys Leu His Lys Gly Ser Arg Asp Asn Met Ser
20 25 30

Ile Val Leu Val Cys Phe Ser Asn Ala Pro Lys Val Ser Asp Glu Ala
35 40 45

Val Lys Lys Asp Ser Glu Leu Asp Lys His Leu Glu Ser Arg Val Glu
50 55 60

Glu Ile Met Glu Lys Ser Gly Glu Glu Gly Met Pro Asp Leu Ala His
65 70 75 80

Val Met Arg Ile Leu Ser Ala Glu Asn Ile Pro Asn Leu Pro Pro Gly
85 90 95

Gly Gly Leu Ala Gly Lys Arg Asn Val Ile Glu Ala Val Tyr Ser Arg
100 105 110

Leu Asn Pro His Arg Glu Ser Asp Gly Ala Ser Asp Glu Ala Glu Glu
115 120 125

Ser Gly Ser Gln Gly Lys Leu Val Glu Ala Leu Arg Gln Met Arg Ile
130 135 140

Asn His Arg Gly Asn Tyr Arg Gln Leu Leu Glu Glu Met Leu Thr Ser
145 150 155 160

Tyr Arg Leu Ala Lys Val Glu Gly Glu Glu Ser Pro Ala Glu Pro Ala
165 170 175

P 2056 PCT BLN ST25 (2)

Ala Thr Ala Thr Ser Ser Asn Ser Asp Ala Gly Asn Pro Val Thr Met
 180 185 190

Gln Glu Ser His Thr Glu Ser Glu Ser Gly Leu Ala Glu Leu Asp Ser
 195 200 205

Ser Asn Glu Asp Ala Gly Thr Lys Met Ser Gly Glu Lys Ile
 210 215 220

<210> 51
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 51

Ala Ser Gln Asn Ile Val Ile Ile Leu Cys Gly Asn Lys Lys Asp Leu
 1 5 10 15

Asp Ala Asp Arg Glu Val Thr Phe Leu Glu Ala Ser Arg Phe Ala Gln
 20 25 30

Glu Asn Glu Leu Met Phe Leu Glu Thr Ser Ala Leu Thr Gly Glu Asn
 35 40 45

Val Glu Glu Ala Phe Val Gln Cys Ala Arg Lys Ile Leu Asn Lys Ile
 50 55 60

Glu Ser Gly Glu Leu Asp Pro Glu Arg Met Gly Ser Gly Ile Gln Tyr
 65 70 75 80

Gly Asp Ala Ala Leu Arg Gln Leu Arg Ser Pro Arg Arg Ala Gln Ala
 85 90 95

Pro Asn Ala Gln Glu Cys Gly Cys
 100

<210> 52
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 52

Ala Ile Leu Val Tyr Asp Ile Thr Asp Glu Asp Ser Phe Gln Lys Val
 1 5 10 15

Lys Asn Trp Val Lys Glu Leu Arg Lys Met Leu Gly Asn Glu Ile Cys
 20 25 30

Leu Cys Ile Val Gly Asn Lys Ile Asp Leu Glu Lys Glu Arg His Val
 35 40 45

Ser Ile Gln Glu Ala Glu Ser Tyr Ala Glu Ser Val Gly Ala Lys His
 50 55 60

P 2056 PCT BLN ST25 (2)

Tyr His Thr Ser Ala Lys Gln Asn Lys Gly Ile Glu Glu Leu Phe Leu
65 70 75 80

Asp Leu Cys Lys Arg Met Ile Glu Thr Ala Gln Val Asp Glu Arg Ala
85 90 95

Lys Gly Asn Gly Ser Ser Gln Pro Gly Thr Ala Arg Arg Gly Val Gln
100 105 110

Ile Ile Asp Asp Glu Pro Gln Ala Gln Thr Ser Gly Gly Gly Cys Cys
115 120 125

Ser Ser Gly
130