

SEQUENCE LISTING

<110> Narasimhan, Chakravarthy Nachu
De, Arnab

<120> STABLE FORMULATIONS OF ANTI-TIGIT ANTIBODIES ALONE AND IN
COMBINATION WITH PROGRAMMED DEATH RECEPTOR 1 (PD-1) ANTIBODIES
AND METHODS OF USE THEREOF

<130> 24453

<150> 62/500,278

<151> 2017-05-02

<160> 293

<170> PatentIn version 3.5

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

Gly Tyr Ser Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

Arg Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
65 70 75 80

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Lys Gly Val Ser Thr Ser
20 25 30

Gly Tyr Ser Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

Arg Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
65 70 75 80

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105 110

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

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
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Asn Tyr Tyr Met Tyr
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Asn

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
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Tyr Met Tyr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Gly Ile Asn Pro Ser Asn Gly Gly Thr Asn Phe Asn Glu Lys Phe
50 55 60

Lys Asn Arg Val Thr Leu Thr Thr Asp Ser Ser Thr Thr Thr Ala Tyr
65 70 75 80

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

Ala Arg Arg Asp Tyr Arg Phe Asp Met Gly Phe Asp Tyr Trp Gly Gln
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Gly Thr Thr Val Thr Val Ser Ser
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20 25 30

Tyr Met Tyr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Gly Ile Asn Pro Ser Asn Gly Gly Thr Asn Phe Asn Glu Lys Phe
50 55 60

Lys Asn Arg Val Thr Leu Thr Thr Asp Ser Ser Thr Thr Thr Ala Tyr
65 70 75 80

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

Ala Arg Arg Asp Tyr Arg Phe Asp Met Gly Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

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

Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg
405 410 415

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

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Ser Asn Trp Pro Arg
85 90 95

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Ser Asn Trp Pro Arg
85 90 95

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

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

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

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

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Lys Arg Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Thr Asn Asp Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100 105 110

Ser

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Ser Leu Arg Leu Asp Cys Lys Ala Ser Gly Ile Thr Phe Ser Asn Ser
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Lys Arg Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Thr Asn Asp Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100 105 110

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser
115 120 125

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
145 150 155 160

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
165 170 175

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys
180 185 190

Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp
195 200 205

Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala
210 215 220

Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
225 230 235 240

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
245 250 255

Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
260 265 270

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
275 280 285

Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
290 295 300

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
305 310 315 320

Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
325 330 335

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr
340 345 350

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
355 360 365

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
370 375 380

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
385 390 395 400

Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe
405 410 415

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

Tyr Met Tyr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Gly Ile Asn Pro Ser Asn Gly Gly Thr Asn Phe Asn Glu Lys Phe
50 55 60

Lys Asn Arg Val Thr Leu Thr Thr Asp Ser Ser Thr Thr Thr Ala Tyr
65 70 75 80

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

Ala Arg Arg Asp Tyr Arg Phe Asp Met Gly Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser
115 120

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

Gly Tyr Ser Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

Arg Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
65 70 75 80

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 29

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

Gly Tyr Ser Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
35 40 45

Gln Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Asp
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser
65 70 75 80

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

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

Gly Tyr Ser Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
35 40 45

Gln Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Asp
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Lys Ile Ser
65 70 75 80

Arg Val Glu Ala Glu Asp Val Gly Leu Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

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Gln Val Gln Leu Val Gln Ser Gly Val Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Tyr Met Tyr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Gly Ile Asn Pro Ser Asn Gly Gly Thr Asn Phe Asn Glu Lys Phe
50 55 60

Lys Asn Arg Val Thr Leu Thr Thr Asp Ser Ser Thr Thr Thr Ala Tyr
65 70 75 80

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

Ala Arg Arg Asp Tyr Arg Phe Asp Met Gly Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

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

Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
435 440 445

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

Gly Tyr Ser Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

Arg Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
65 70 75 80

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105 110

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

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

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Glu Ile Val Leu Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ala Ser Lys Gly Val Ser Thr Ser
20 25 30

Gly Tyr Ser Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
35 40 45

Gln Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Asp
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser
65 70 75 80

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

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

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

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Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ala Ser Lys Gly Val Ser Thr Ser
20 25 30

Gly Tyr Ser Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
35 40 45

Gln Leu Leu Ile Tyr Leu Ala Ser Tyr Leu Glu Ser Gly Val Pro Asp
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Lys Ile Ser
65 70 75 80

Arg Val Glu Ala Glu Asp Val Gly Leu Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

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

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
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Ser Asp Tyr Trp Gly
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Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

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<400> 37

Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly Tyr
1 5 10 15

Phe Asp Phe

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Lys Ala Ser Gln Ser Ile His Lys Asn Leu Ala
1 5 10

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Tyr Ala Asn Ser Leu Gln Thr
1 5

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Gln Gln Tyr Tyr Ser Gly Trp Thr
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<210> 41
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Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Ser Leu Ser Leu Thr Cys Ser Val Thr Gly Ser Ser Ile Ala Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Lys Phe Pro Gly Asn Lys Met Glu Trp Met
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Ser Ile Thr Arg Asp Thr Ser Lys Asn Gln Phe Phe Leu
65 70 75 80

Gln Leu His Ser Val Thr Thr Asp Asp Thr Ala Thr Tyr Ser Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Pro Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 42
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 42

Asp Ile Gln Met Thr Gln Ser Pro Ser Leu Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Leu Asn Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Leu Gly Glu Ala Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Gly Leu Gln Pro
65 70 75 80

Glu Asp Val Ala Thr Tyr Phe Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Leu Lys
100 105

<210> 43
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 43

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 44
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 44

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 45

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 45

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 46
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 46

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Met
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 47
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 47

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 48
<211> 127

<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 48

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 49
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 49

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 50
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 50

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Met
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 51
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 51

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 52
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 52

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 53
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 53

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 54

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 54

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Ser Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Met
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 55
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 55

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 56
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 56

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 57
<211> 127

<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 57

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Ser Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 58
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 58

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Ser Ser Ile Ser Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Met
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Ile Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu His Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 59
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 59

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 60
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 60

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 61
<211> 106
<212> PRT
<213> Artificial Sequence

<220>

<223> protein

<400> 61

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 62

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 62

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 63
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 63

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 64
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 64

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 65
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> protein
<400> 65

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp

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

Ser

<210> 66
 <211> 127
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 66

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

50		55		60
Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu				
65		70		75
				80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala				
		85		90
				95
Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly				
		100		105
				110
Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser				
		115		120
				125
<210> 67				
<211> 127				
<212> PRT				
<213> Artificial Sequence				
<220>				
<223> protein				
<400> 67				
Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu				
1		5		10
				15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp				
		20		25
				30
Tyr Trp Gly Trp Ile Arg Lys Pro Pro Gly Lys Gly Leu Glu Trp Ile				
		35		40
				45
Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys				
		50		55
				60
Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu				
65		70		75
				80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala				
		85		90
				95
Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly				

100

105

110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 115 120 125

<210> 68

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 68

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp
 20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Lys Leu Glu Trp Ile
 35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
 50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
 100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 115 120 125

<210> 69

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 69

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Met Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 70

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 70

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Lys Pro Pro Gly Lys Lys Met Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 71
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 71

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Phe Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Asp Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

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<400> 72

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Ser Ile Ala Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Lys Pro Pro Gly Lys Lys Met Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 73
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Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Val Thr Gly Ser Ser Ile Ala Ser Asp
20 25 30

Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Trp Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120 125

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Glu Val Gln Leu Gln Gln Ser Gly Ala Gly Leu Leu Lys Pro Ser Glu

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

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

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105

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<400> 77

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 78
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<400> 78

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 79
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<212> PRT
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<400> 79

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 80
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<400> 80

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Ala Asn Ser Leu Gln Thr Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Trp Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

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<400> 81

Gly Tyr Ser Ile Thr Ser Asp Tyr Ala Trp Asn
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Tyr Ile Ser Asn Ser Gly Ser Ala Ser Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 83

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<400> 83

Leu Ile Tyr Tyr Asp Tyr Gly Gly Ala Met Asn Phe
1 5 10

<210> 84

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<400> 84

Lys Ala Ser Gln Gly Val Ser Thr Thr Val Ala
1 5 10

<210> 85

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<400> 85

Ser Ala Ser Tyr Arg Tyr Thr
1 5

<210> 86

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<400> 86

Gln His Tyr Tyr Ser Thr Pro Trp Thr
1 5

<210> 87

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Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Tyr Ser Ile Thr Ser Asp
20 25 30

Tyr Ala Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp
35 40 45

Met Gly Tyr Ile Ser Asn Ser Gly Ser Ala Ser Tyr Asn Pro Ser Leu
50 55 60

Lys Ser Arg Ile Ser Ile Thr Arg Asp Thr Ser Lys Asn Gln Phe Phe
65 70 75 80

Leu Gln Leu Asn Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys
85 90 95

Ala Thr Leu Ile Tyr Tyr Asp Tyr Gly Gly Ala Met Asn Phe Trp Gly
100 105 110

Gln Gly Thr Ser Val Thr Val Ser Ser
115 120

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<400> 88

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Gly Val Ser Thr Thr
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Val Gln Ser
65 70 75 80

Glu Asp Leu Ala Val Tyr Tyr Cys Gln His Tyr Tyr Ser Thr Pro Trp
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

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<400> 89

Tyr Ala Ser Asn Leu Gln Thr
1 5

<210> 90

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Tyr Ala Ser Ser Leu Gln Thr
1 5

<210> 91

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Tyr Ala Ser Thr Leu Gln Thr
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Tyr Ala Thr Thr Leu Gln Thr
1 5

<210> 93

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Tyr Ala Ser Tyr Leu Gln Thr
1 5

<210> 94
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Tyr Ala Asn Gln Leu Gln Thr
1 5

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Tyr Ala Gly Ser Leu Gln Thr
1 5

<210> 96
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Tyr Ala Ser Gln Leu Gln Thr
1 5

<210> 97
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<400> 97

Tyr Ala Asp Ser Leu Gln Thr
1 5

<210> 98

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Gln Gln Tyr Tyr Ser Gly Phe Thr
1 5

<210> 99

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<400> 99

Gln Gln Tyr Tyr Ser Gly Tyr Thr
1 5

<210> 100

<211> 8

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<400> 100

Gln Gln Tyr Tyr Ser Gly Ile Thr
1 5

<210> 101

<211> 8
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<400> 101

Gln Gln Tyr Tyr Ser Gly Val Thr
1 5

<210> 102
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<400> 102

Gln Gln Tyr Tyr Ser Gly Leu Thr
1 5

<210> 103
<211> 19
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<400> 103

Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Phe Glu Gly Tyr
1 5 10 15

Phe Asp Phe

<210> 104
<211> 19
<212> PRT
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<400> 104

Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Tyr Glu Gly Tyr
1 5 10 15

Phe Asp Phe

<210> 105
<211> 19
<212> PRT
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<400> 105

Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Ile Glu Gly Tyr
1 5 10 15

Phe Asp Phe

<210> 106
<211> 19
<212> PRT
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<400> 106

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

Phe Asp Phe

<210> 107
<211> 19
<212> PRT
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<400> 107

Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Leu Glu Gly Tyr
1 5 10 15

Phe Asp Phe

<210> 108
<211> 5
<212> PRT
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<400> 108

Ser Tyr Val Met His
1 5

<210> 109
<211> 17
<212> PRT
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<400> 109

Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 110
<211> 10
<212> PRT
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<400> 110

Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val
1 5 10

<210> 111
<211> 11
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<400> 111

Arg Ala Ser Glu His Ile Tyr Ser Tyr Leu Ser
1 5 10

<210> 112
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<212> PRT
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<400> 112

Asn Ala Lys Thr Leu Ala Glu
1 5

<210> 113
<211> 9
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<220>
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<400> 113

Gln His His Phe Gly Ser Pro Leu Thr
1 5

<210> 114
<211> 119
<212> PRT
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<400> 114

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ser

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

50

55

60

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

Glu Asp Phe Gly Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu
85 90 95

Thr Phe Gly Ala Gly Thr Thr Leu Glu Leu Lys
100 105

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<400> 116

Tyr Ile Asp Pro Tyr Asn Arg Gly Ala Lys Tyr Asn Glu Lys Phe Gly
1 5 10 15

<210> 117
<211> 16
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<400> 117

Tyr Ile Asp Pro Tyr Asn Leu Gly Ala Lys Tyr Asn Glu Lys Phe Gly
1 5 10 15

<210> 118
<211> 16
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<400> 118

Tyr Ile Asp Pro Tyr Asn Lys Gly Ala Lys Tyr Asn Glu Lys Phe Gly

1 5 10 15

<210> 119
<211> 16
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<400> 119

Tyr Ile Asp Pro Tyr Asn Phe Gly Ala Lys Tyr Asn Glu Lys Phe Gly
1 5 10 15

<210> 120
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<400> 120

Tyr Ile Asp Pro Tyr Asn Ser Gly Ala Lys Tyr Asn Glu Lys Phe Gly
1 5 10 15

<210> 121
<211> 16
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<220>
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<400> 121

Tyr Ile Asp Pro Tyr Asn Tyr Gly Ala Lys Tyr Asn Glu Lys Phe Gly
1 5 10 15

<210> 122
<211> 16
<212> PRT
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<220>
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<400> 122

Tyr Ile Asp Pro Tyr Asn Val Gly Ala Lys Tyr Asn Glu Lys Phe Gly
1 5 10 15

<210> 123
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 123

Tyr Ile Asp Pro Tyr Asn Asp Arg Ala Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 124
<211> 17
<212> PRT
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<220>
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<400> 124

Tyr Ile Asp Pro Tyr Asn Asp Asn Ala Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 125
<211> 17
<212> PRT
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<220>
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<400> 125

Tyr Ile Asp Pro Tyr Asn Asp Gln Ala Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 126
<211> 17
<212> PRT
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<220>
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<400> 126

Tyr	Ile	Asp	Pro	Tyr	Asn	Asp	Glu	Ala	Lys	Tyr	Asn	Glu	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 127
<211> 17
<212> PRT
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<220>
<223> protein

<400> 127

Tyr	Ile	Asp	Pro	Tyr	Asn	Asp	Leu	Ala	Lys	Tyr	Asn	Glu	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 128
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 128

Tyr	Ile	Asp	Pro	Tyr	Asn	Asp	Lys	Ala	Lys	Tyr	Asn	Glu	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 129
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 129

Tyr	Ile	Asp	Pro	Tyr	Asn	Asp	Ser	Ala	Lys	Tyr	Asn	Glu	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 130
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 130

Tyr	Ile	Asp	Pro	Tyr	Asn	Asp	Tyr	Ala	Lys	Tyr	Asn	Glu	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 131
<211> 17
<212> PRT
<213> Artificial Sequence

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<400> 131

Tyr	Ile	Asp	Pro	Tyr	Asn	Asp	Val	Ala	Lys	Tyr	Asn	Glu	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 132
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<400> 132

Ala Ala Lys Thr Leu Ala Glu
1 5

<210> 133
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<400> 133

Tyr Ala Lys Thr Leu Ala Glu
1 5

<210> 134
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<220>
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<400> 134

Trp Ala Lys Thr Leu Ala Glu
1 5

<210> 135
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<400> 135

Ser Ala Lys Thr Leu Ala Glu
1 5

<210> 136

<211> 7

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<400> 136

Thr Ala Lys Thr Leu Ala Glu
1 5

<210> 137

<211> 7

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<400> 137

Ile Ala Lys Thr Leu Ala Glu
1 5

<210> 138

<211> 7

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Val Ala Lys Thr Leu Ala Glu
1 5

<210> 139

<211> 7

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<400> 139

Asn Asn Lys Thr Leu Ala Glu
1 5

<210> 140
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<400> 140

Asn Ile Lys Thr Leu Ala Glu
1 5

<210> 141
<211> 7
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<213> Artificial Sequence

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Asn Leu Leu Thr Leu Ala Glu
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Asn Val Lys Thr Leu Ala Glu
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<400> 144

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
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Val Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ser Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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<211> 119
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Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Val Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ser Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Ser Asp Lys Ser Ala Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

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Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Val Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Val Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Ser Asp Lys Ser Thr Ser Thr Val Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
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Val Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Ser Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Val Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Ser Asp Lys Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Val Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Trp Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu His Ile Tyr Ser Tyr
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Leu Ser Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu
85 90 95

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu His Ile Tyr Ser Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly

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Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro				
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				80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu				
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Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys				
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly				
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu His Ile Tyr Ser Tyr				
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				30
Leu Ser Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile				
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				45
Tyr Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly				
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Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro				
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				75
				80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu				
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Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys				
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu His Ile Tyr Ser Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35 40 45

Tyr Asn Ala Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Val Ala Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
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<400> 154

Tyr Ile Asp Pro Tyr Asn Asp Gly Ala Lys Tyr Ala Gln Lys Phe Gln
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Gly

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<400> 155

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

Gly

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<400> 156

Gln Val Gln Leu Met Glu Ser Gly Pro Gly Leu Val Gln Pro Ser Gln
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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Pro Leu Thr Ser Tyr
20 25 30

Thr Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Ala Ile Trp Ser Ser Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

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

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

Lys Ser Gly Trp Ala Phe Phe Asp Tyr Trp Gly Gln Gly Val Met Val

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

Leu Ala Trp Tyr Gln Leu Lys Leu Gly Glu Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asn Ala Asn Ser Leu Gln Ala Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ala Leu Thr Ile Ser Gly Leu Gln Pro
65 70 75 80

Glu Asp Val Ala Thr Tyr Phe Cys Gln Gln Tyr Ser Gly Gly Tyr Thr
85 90 95

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
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<400> 158

Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Arg
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Ser Leu Lys Ile Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30

Tyr Met Ala Trp Val Arg Leu Ala Pro Gln Lys Gly Leu Glu Trp Val
35 40 45

Ala Ser Ile Ser Tyr Glu Gly Ser Arg Thr His Tyr Gly Asp Ser Val
50 55 60

Arg Gly Arg Phe Ile Ile Ser Arg Asp Asn Pro Lys Asn Ile Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Gly Ser Glu Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg His Thr Gly Thr Leu Asp Trp Leu Val Tyr Trp Gly Gln Gly
100 105 110

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

Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Phe Tyr Ala Ser Asn Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Gly Gly Tyr Gly Thr Asp Phe Thr Leu Thr Ile Lys Ser Val Gln Ala
65 70 75 80

Glu Asp Ala Ala Phe Tyr Tyr Cys Gln Arg Ile Tyr Asn Phe Pro Thr
85 90 95

Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
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Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Xaa Glu Gly Tyr
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Phe Asp Phe

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Tyr Ala Xaa Xaa Leu Gln Thr
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Gln Gln Tyr Tyr Ser Gly Xaa Thr
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Xaa Leu Ser Leu Thr Cys Xaa Val Xaa Gly Xaa Ser Ile Xaa Ser Asp
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Tyr Trp Gly Trp Xaa Arg Xaa Xaa Pro Gly Xaa Xaa Xaa Glu Trp Xaa
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Xaa Xaa Ile Xaa Xaa Asp Thr Ser Lys Asn Gln Phe Xaa Leu
65 70 75 80

Xaa Leu Xaa Ser Val Thr Xaa Xaa Asp Thr Ala Xaa Tyr Xaa Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Xaa Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Xaa Gly Thr Xaa Xaa Thr Val Ser Ser
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Glu Val Gln Leu Gln Xaa Ser Gly Xaa Gly Leu Xaa Lys Pro Xaa Xaa
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Thr Leu Ser Leu Thr Cys Xaa Val Xaa Gly Xaa Ser Ile Xaa Ser Asp
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Tyr Trp Gly Trp Xaa Arg Xaa Xaa Pro Gly Lys Xaa Xaa Glu Trp Xaa
35 40 45

Gly Phe Ile Thr Tyr Ser Gly Ser Thr Ser Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Xaa Thr Ile Ser Xaa Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Xaa Ser Val Thr Ala Xaa Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Met Pro Ser Phe Ile Thr Leu Ala Ser Leu Ser Thr Xaa Glu Gly
100 105 110

Tyr Phe Asp Phe Trp Gly Gln Gly Thr Xaa Xaa Thr Val Ser Ser
115 120 125

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Asp Arg Val Thr Xaa Xaa Cys Lys Ala Ser Gln Ser Ile His Lys Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Xaa Gly Xaa Xaa Pro Lys Xaa Leu Ile

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Tyr	Tyr	Ala	Xaa	Xaa	Leu	Gln	Thr	Gly	Xaa	Pro	Ser	Arg	Phe	Ser	Gly				
	50					55					60								
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Xaa	Leu	Gln	Pro				
65					70					75					80				
Glu	Asp	Xaa	Ala	Thr	Tyr	Xaa	Cys	Gln	Gln	Tyr	Tyr	Ser	Gly	Xaa	Thr				
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Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser Ile His Lys Asn
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Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Xaa Pro Lys Xaa Leu Ile
35 40 45

Tyr Tyr Ala Xaa Xaa Leu Gln Thr Gly Xaa Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Xaa Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Ser Gly Xaa Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

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Tyr Ile Asp Pro Tyr Asn Xaa Xaa Ala Lys Tyr Xaa Xaa Lys Phe Xaa
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Xaa Xaa Lys Thr Leu Ala Glu
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Ser Val Lys Xaa Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Val Met His Trp Val Xaa Gln Xaa Pro Gly Gln Xaa Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Xaa Xaa Ala Lys Tyr Xaa Xaa Lys Phe
50 55 60

Xaa Gly Xaa Xaa Thr Leu Thr Xaa Asp Xaa Ser Xaa Ser Thr Xaa Tyr
65 70 75 80

Met Glu Leu Ser Xaa Leu Xaa Ser Xaa Asp Xaa Xaa Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Xaa Tyr Phe Asp Val Trp Gly Xaa Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30

Val Met His Trp Val Arg Gln Ala Pro Gly Gln Xaa Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Tyr Asn Xaa Xaa Ala Lys Tyr Xaa Xaa Lys Phe
50 55 60

Xaa Gly Arg Val Thr Leu Thr Xaa Asp Xaa Ser Xaa Ser Thr Xaa Tyr
65 70 75 80

Met Glu Leu Ser Xaa Leu Arg Ser Xaa Asp Thr Xaa Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Pro Tyr Gly Xaa Tyr Phe Asp Val Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

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Xaa Xaa Val Thr Ile Thr Cys Arg Ala Ser Glu His Ile Tyr Ser Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Xaa Gly Lys Xaa Pro Xaa Leu Leu Xaa
35 40 45

Tyr Xaa Xaa Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Xaa Phe Xaa Leu Xaa Ile Xaa Ser Leu Gln Pro
65 70 75 80

Glu Asp Xaa Xaa Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu
85 90 95

Thr Phe Gly Xaa Gly Thr Xaa Leu Glu Xaa Lys
100 105

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu His Ile Tyr Ser Tyr	20	25	30
Leu Ser Trp Tyr Gln Gln Lys Pro Gly Lys Xaa Pro Lys Leu Leu Ile	35	40	45
Tyr Xaa Xaa Lys Thr Leu Ala Glu Gly Val Pro Ser Arg Phe Ser Gly	50	55	60
Ser Gly Ser Gly Thr Xaa Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro	65	70	75
Glu Asp Xaa Ala Thr Tyr Tyr Cys Gln His His Phe Gly Ser Pro Leu	85	90	95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys	100	105	

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Gly Gly Pro Tyr Gly Xaa Tyr Phe Asp Val
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Gly Gly Pro Tyr Gly Ala Tyr Phe Asp Val
1 5 10

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Gly Gly Pro Tyr Gly Asp Tyr Phe Asp Val
1 5 10

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Gly Gly Pro Tyr Gly Glu Tyr Phe Asp Val
1 5 10

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Gly Gly Pro Tyr Gly Phe Tyr Phe Asp Val
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Gly	Gly	Pro	Tyr	Gly	Gly	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Ile	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Lys	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Asn	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Gln	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Arg	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Ser	Tyr	Phe	Asp	Val
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Gly	Gly	Pro	Tyr	Gly	Thr	Tyr	Phe	Asp	Val
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Gly Gly Pro Tyr Gly Tyr Tyr Phe Asp Val
1 5 10

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Gly Ala Trp Met Asp
1 5

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Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu Ser
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Val Lys Gly

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Ala Leu Tyr Asp Gly Phe Tyr Phe Asp Tyr
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Ser Ala Ser Ser Ser Val Ser Ser Gly Tyr Leu Tyr
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Gly Thr Ser Thr Leu Ala Ser
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His Gln Trp Ser Ser Phe Pro Tyr Thr
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Glu Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ser Pro Glu Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ser
65 70 75 80

Val Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Ser Gly Ile Tyr
85 90 95

Tyr Cys Arg Gly Ala Leu Tyr Asp Gly Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Leu Thr Val Ser Ser
115 120

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Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
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Glu Lys Val Asn Leu Thr Cys Ser Ala Ser Ser Ser Val Ser Ser Gly
20 25 30

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Lys Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Asn Met Glu
65 70 75 80

Ala Glu Asp Ala Ala Ser Tyr Phe Cys His Gln Trp Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Met Lys
100 105

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Xaa Xaa Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

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

85

90

95

Tyr Cys Arg Gly Ala Leu Tyr Asp Gly Phe Tyr Phe Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 198

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
 20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
 50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ser
 65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Gly Phe Tyr Phe Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

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

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Gly Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

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Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Xaa Leu Xaa
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Xaa Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Xaa Glu
65 70 75 80

Pro Glu Asp Xaa Ala Val Tyr Tyr Cys His Gln Xaa Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Xaa Lys
100 105

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Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Trp Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Trp Ser Ser Phe Pro
85 90 95

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

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Trp Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

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Glu Phe Thr Met His
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<400> 205

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

Gly

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Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr
1 5 10

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Lys Ala Ser Gln Asp Val Lys Thr Ala Val Ala
1 5 10

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<400> 208

Ser Ala Ser Tyr Arg Asn Thr
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Gln Gln His Tyr Ser Thr Pro Phe Thr
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Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
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Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Leu Thr Val Ser Ser
115

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<211> 107
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<400> 211

Asp Ile Val Leu Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Lys Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Ser Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Asn Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

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

Glu Asp Leu Ala Val Tyr Phe Cys Gln Gln His Tyr Ser Thr Pro Phe
85 90 95

Thr Phe Gly Thr Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 212
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<400> 212

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Xaa Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Xaa His Trp Val Xaa Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Xaa Xaa Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Xaa Ser Thr Xaa Thr Ala Tyr
65 70 75 80

Xaa Glu Leu Ser Ser Leu Arg Ser Glu Asp Xaa Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Xaa Xaa Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 213
<211> 119
<212> PRT
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<400> 213

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 214
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 214

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 215
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 215

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 216
<211> 107
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<400> 216

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Lys Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Xaa Xaa Gly Val Pro Xaa Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Xaa Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 217
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
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<400> 217

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Lys Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Asn Thr Gly Val Pro Asp Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 218
<211> 107
<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 218

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Lys Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Asn Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 219

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

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<400> 219

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Lys Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile

35	40	45
Tyr Ser Ala Ser Tyr Arg Asn Thr Gly Val Pro Ser Arg Phe Ser Gly		
50	55	60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro		
65	70	75
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Phe		
85	90	95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys		
100	105	

<210> 220
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<400> 220

Ala Leu Tyr Glu Gly Phe Tyr Phe Asp Tyr
1 5 10

<210> 221
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 221

Ala Leu Tyr Asp Ala Phe Tyr Phe Asp Tyr
1 5 10

<210> 222
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 222

Ala Leu Tyr Asp Ser Phe Tyr Phe Asp Tyr
1 5 10

<210> 223

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 223

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Thr
65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Glu Gly Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 224

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 224

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Thr
65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Ala Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 225

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 225

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Thr
65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Ser Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 226
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 226

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ser
65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Glu Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 227
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 227

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ser
65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Ala Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 228
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 228

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala
20 25 30

Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ser
65 70 75 80

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

Tyr Cys Arg Gly Ala Leu Tyr Asp Ser Phe Tyr Phe Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 229
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 229

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

1		5		10		15									
Ser	Leu	Lys	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Gly	Ala
			20					25					30		
Trp	Met	Asp	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Glu	Ile	Arg	Thr	Lys	Val	Asn	Asn	His	Ala	Thr	Asn	Tyr	Gly	Glu
	50					55					60				
Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70					75					80
Val	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Arg	Gly	Ala	Leu	Tyr	Glu	Gly	Phe	Tyr	Phe	Asp	Tyr	Trp	Gly
			100						105				110		
Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser							
		115					120								
<210> 230															
<211> 121															
<212> PRT															
<213> Artificial Sequence															
<220>															
<223> protein															
<400> 230															
Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Lys	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Gly	Ala
			20					25					30		
Trp	Met	Asp	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Glu	Ile	Arg	Thr	Lys	Val	Asn	Asn	His	Ala	Thr	Asn	Tyr	Gly	Glu

50		55		60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr				
65		70		75
Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr				
	85		90	95
Tyr Cys Arg Gly Ala Leu Tyr Asp Ala Phe Tyr Phe Asp Tyr Trp Gly				
	100		105	110
Gln Gly Thr Leu Val Thr Val Ser Ser				
	115		120	
<210> 231				
<211> 121				
<212> PRT				
<213> Artificial Sequence				
<220>				
<223> protein				
<400> 231				
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly				
1	5		10	15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Ala				
	20		25	30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val				
	35		40	45
Ala Glu Ile Arg Thr Lys Val Asn Asn His Ala Thr Asn Tyr Gly Glu				
	50		55	60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr				
65		70		75
Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr				
	85		90	95
Tyr Cys Arg Gly Ala Leu Tyr Asp Ser Phe Tyr Phe Asp Tyr Trp Gly				

100

105

110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 232
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 232

His Gln Ala Ser Ser Phe Pro Tyr Thr
1 5

<210> 233
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 233

His Gln Asp Ser Ser Phe Pro Tyr Thr
1 5

<210> 234
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 234

His Gln Glu Ser Ser Phe Pro Tyr Thr
1 5

<210> 235
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 235

His Gln Phe Ser Ser Phe Pro Tyr Thr
1 5

<210> 236
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 236

His Gln Gly Ser Ser Phe Pro Tyr Thr
1 5

<210> 237
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 237

His Gln His Ser Ser Phe Pro Tyr Thr
1 5

<210> 238
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 238

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Ala Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 239
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 239

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Asp Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 240
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 240

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Glu Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 241
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 241

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly

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

<210> 242
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 242

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

65					70					75					80
Pro	Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	His	Gln	Gly	Ser	Ser	Phe	Pro
				85					90					95	

Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys
			100					105			

<210> 243
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 243

Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Ala	Thr	Leu	Ser	Leu	Ser	Pro	Gly
1				5					10					15	

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

Tyr	Leu	Tyr	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Lys	Leu	Trp
		35					40					45			

Ile	Tyr	Gly	Thr	Ser	Thr	Leu	Ala	Ser	Gly	Val	Pro	Ala	Arg	Phe	Ser
	50					55					60				

Gly	Ser	Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Glu
65					70					75				80	

Pro	Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	His	Gln	His	Ser	Ser	Phe	Pro
				85					90					95	

Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys
			100					105			

<210> 244
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>

<223> protein

<400> 244

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Ala Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 245

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 245

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Asp Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 246
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 246

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Glu Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 247
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 247

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Phe Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 248
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 248

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Ser Gly

20

25

30

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
 35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
 50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
 65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Gly Ser Ser Phe Pro
 85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 249
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 249

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
 35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Val Pro Ala Arg Phe Ser
 50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
 65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln His Ser Ser Phe Pro

85

90

95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 250

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 250

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
 35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser
 50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
 65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Ala Ser Ser Phe Pro
 85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 251

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 251

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Asp Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 252
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 252

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Glu Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 253
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 253

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Phe Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 254
<211> 108
<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 254

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp
35 40 45

Ile Tyr Gly Thr Ser Thr Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Gly Ser Ser Phe Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 255

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 255

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Tyr Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp

	35		40		45										
Ile	Tyr	Gly	Thr	Ser	Thr	Leu	Ala	Ser	Gly	Ile	Pro	Ala	Arg	Phe	Ser
	50					55					60				
Gly	Ser	Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Glu
65					70					75				80	
Pro	Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	His	Gln	His	Ser	Ser	Phe	Pro
				85					90					95	
Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys				
			100					105							

<210> 256
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 256

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

Gly

<210> 257
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 257

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

Gly

<210> 258
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 258

Gly	Leu	Lys	Pro	Asp	Asn	Ala	Gly	Ile	Ser	Tyr	Asn	Gln	Lys	Phe	Lys
1				5					10					15	

Gly

<210> 259
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 259

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

Gly

<210> 260
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 260

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

Gly

<210> 261
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 261

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

Gly

<210> 262
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 262

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

Gly

<210> 263
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 263

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

Gly

<210> 264
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 264

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Gln Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 265
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 265

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

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

<210> 266
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 266

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

50		55		60											
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Lys	Ser	Thr	Asn	Thr	Ala	Tyr
65					70				75						80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90						95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser									
		115													
<210>	267														
<211>	119														
<212>	PRT														
<213>	Artificial Sequence														
<220>															
<223>	protein														
<400>	267														
Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1			5						10					15	
Ser	Val	Lys	Ile	Ser	Cys	Lys	Thr	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Phe
			20					25					30		
Thr	Met	His	Trp	Val	Lys	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Gly	Leu	Lys	Pro	Asp	Thr	Gly	Gly	Ile	Ser	Tyr	Asn	Gln	Lys	Phe
	50					55					60				
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Lys	Ser	Thr	Asn	Thr	Ala	Tyr
65					70				75						80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90						95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly

100

105

110

Thr Leu Val Thr Val Ser Ser
115

<210> 268

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 268

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Ser Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 269

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 269

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Gly Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 270

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 270

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Ser Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 271
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 271

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Thr Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 272
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 272

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Gln Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 273
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 273

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asp Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 274
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 274

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

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

<210> 275
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> protein

<400> 275

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

50		55		60											
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Lys	Ser	Thr	Ser	Thr	Ala	Tyr
65					70				75						80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90						95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser									
		115													
<210>	276														
<211>	119														
<212>	PRT														
<213>	Artificial Sequence														
<220>															
<223>	protein														
<400>	276														
Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1			5					10						15	
Ser	Val	Lys	Ile	Ser	Cys	Lys	Thr	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Phe
			20					25					30		
Thr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Gly	Leu	Lys	Pro	Asp	Ser	Gly	Gly	Ile	Ser	Tyr	Asn	Gln	Lys	Phe
	50					55					60				
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Lys	Ser	Thr	Ser	Thr	Ala	Tyr
65					70				75						80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90						95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly

100

105

110

Thr Leu Val Thr Val Ser Ser
115

<210> 277

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 277

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Gly Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 278

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 278

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Ser Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 279

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 279

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Thr Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 280
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 280

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Gln Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 281
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 281

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asp Gly Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 282
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 282

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Ala Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 283
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 283

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

1		5		10		15									
Ser	Val	Lys	Ile	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Phe
		20						25					30		
Thr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Gly	Leu	Lys	Pro	Asp	Thr	Gly	Gly	Ile	Ser	Tyr	Asn	Gln	Lys	Phe
	50					55				60					
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser									
		115													
<210>	284														
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Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Ile	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Phe
		20						25					30		
Thr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Gly	Leu	Lys	Pro	Asp	Ser	Gly	Gly	Ile	Ser	Tyr	Asn	Gln	Lys	Phe

50		55		60											
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly
			100					105					110		
Thr	Leu	Val	Thr	Val	Ser	Ser									
		115													
<210>	285														
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Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1			5						10					15	
Ser	Val	Lys	Ile	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Phe
			20					25					30		
Thr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Gly	Leu	Lys	Pro	Asp	Gly	Gly	Gly	Ile	Ser	Tyr	Asn	Gln	Lys	Phe
	50					55					60				
Lys	Gly	Arg	Ala	Thr	Leu	Thr	Val	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Gly	Ala	Tyr	Tyr	Arg	Tyr	Asp	Ala	Asp	Tyr	Trp	Gly	Gln	Gly

100

105

110

Thr Leu Val Thr Val Ser Ser
115

<210> 286

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 286

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Ser Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 287

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 287

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Glu Phe
20 25 30

Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Gly Leu Lys Pro Asp Asn Thr Gly Ile Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Leu Thr Val Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ala Tyr Tyr Arg Tyr Asp Ala Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 288

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 288

Ser Ser Thr Thr Ala Gln Val Asn Trp Glu Gln Gln Asp Gln Leu
1 5 10 15

<210> 289

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 289

Ile Tyr His Thr Tyr Pro Asp Gly Thr
1 5

<210> 290

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

<400> 290

Gly Arg Ile Phe Leu
1 5

<210> 291

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<223> protein

IgG1

<400> 291

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225 230 235 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 292
<211> 325
<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 292

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr
1 5 10 15

Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
20 25 30

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
35 40 45

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
50 55 60

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr
65 70 75 80

Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
85 90 95

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe
100 105 110

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
115 120 125

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
130 135 140

Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
145 150 155 160

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
165 170 175

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
180 185 190

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser
195 200 205

Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
210 215 220

Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln
225 230 235 240

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
245 250 255

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu
275 280 285

Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser
290 295 300

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
305 310 315 320

Leu Ser Leu Gly Lys
325

<210> 293

<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> protein

<400> 293

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

Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro
20 25 30

Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly
35 40 45

Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr
50 55 60

Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His
65 70 75 80

Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val
85 90 95

Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105