

SEQUENCE LISTING

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<120> ANTIBODIES RECOGNIZING TAU

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<150> US62/855,434

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<160> 277

<170> PatentIn version 3.5

<210> 1

<211> 441

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Glu Ser Pro Leu
35 40 45

Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser
50 55 60

Asp Ala Lys Ser Thr Pro Thr Ala Glu Asp Val Thr Ala Pro Leu Val

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

Gly Lys Val Gln Ile Ile Asn Lys Lys Leu Asp Leu Ser Asn Val Gln
275 280 285

Ser Lys Cys Gly Ser Lys Asp Asn Ile Lys His Val Pro Gly Gly Gly
290 295 300

Ser Val Gln Ile Val Tyr Lys Pro Val Asp Leu Ser Lys Val Thr Ser
305 310 315 320

Lys Cys Gly Ser Leu Gly Asn Ile His His Lys Pro Gly Gly Gly Gln
325 330 335

Val Glu Val Lys Ser Glu Lys Leu Asp Phe Lys Asp Arg Val Gln Ser
340 345 350

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

Lys Lys Ile Glu Thr His Lys Leu Thr Phe Arg Glu Asn Ala Lys Ala
370 375 380

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

Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly Ser
405 410 415

Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu Val
420 425 430

Ser Ala Ser Leu Ala Lys Gln Gly Leu
435 440

<210> 2
<211> 412
<212> PRT
<213> Homo sapiens

<400> 2

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Glu Ser Pro Leu
35 40 45

Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser
50 55 60

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

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

Arg Met Val Ser Lys Ser Lys Asp Gly Thr Gly Ser Asp Asp Lys Lys
100 105 110

Ala Lys Gly Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro Arg Gly Ala
115 120 125

Ala Pro Pro Gly Gln Lys Gly Gln Ala Asn Ala Thr Arg Ile Pro Ala
130 135 140

Lys Thr Pro Pro Ala Pro Lys Thr Pro Pro Ser Ser Gly Glu Pro Pro
145 150 155 160

Lys Ser Gly Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr
165 170 175

Pro Gly Ser Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr Arg
180 185 190

Glu Pro Lys Lys Val Ala Val Val Arg Thr Pro Pro Lys Ser Pro Ser
195 200 205

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

Lys Asn Val Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys His Gln
225 230 235 240

Pro Gly Gly Gly Lys Val Gln Ile Ile Asn Lys Lys Leu Asp Leu Ser
245 250 255

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

Gly Gly Gly Ser Val Gln Ile Val Tyr Lys Pro Val Asp Leu Ser Lys
275 280 285

Val Thr Ser Lys Cys Gly Ser Leu Gly Asn Ile His His Lys Pro Gly
290 295 300

Gly Gly Gln Val Glu Val Lys Ser Glu Lys Leu Asp Phe Lys Asp Arg
305 310 315 320

Val Gln Ser Lys Ile Gly Ser Leu Asp Asn Ile Thr His Val Pro Gly
325 330 335

Gly Gly Asn Lys Lys Ile Glu Thr His Lys Leu Thr Phe Arg Glu Asn
340 345 350

Ala Lys Ala Lys Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser Pro
355 360 365

Val Val Ser Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser
370 375 380

Thr Gly Ser Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala
385 390 395 400

Asp Glu Val Ser Ala Ser Leu Ala Lys Gln Gly Leu
405 410

<210> 3
<211> 383
<212> PRT
<213> Homo sapiens

<400> 3

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Ala Glu Glu Ala
35 40 45

Gly Ile Gly Asp Thr Pro Ser Leu Glu Asp Glu Ala Ala Gly His Val
50 55 60

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

Asp Lys Lys Ala Lys Gly Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro
85 90 95

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

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

Glu Pro Pro Lys Ser Gly Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser
130 135 140

Pro Gly Thr Pro Gly Ser Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro

145

150

155

160

Pro	Thr	Arg	Glu	Pro	Lys	Lys	Val	Ala	Val	Val	Arg	Thr	Pro	Pro	Lys
				165					170					175	

Ser Pro Ser Ser Ala Lys Ser Arg Leu Gln Thr Ala Pro Val Pro Met
180 185 190

Pro Asp Leu Lys Asn Val Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu
195 200 205

Lys His Gln Pro Gly Gly Gly Lys Val Gln Ile Ile Asn Lys Lys Leu
210 215 220

Asp Leu Ser Asn Val Gln Ser Lys Cys Gly Ser Lys Asp Asn Ile Lys
225 230 235 240

His Val Pro Gly Gly Gly Ser Val Gln Ile Val Tyr Lys Pro Val Asp
245 250 255

Leu Ser Lys Val Thr Ser Lys Cys Gly Ser Leu Gly Asn Ile His His
260 265 270

Lys Pro Gly Gly Gly Gln Val Glu Val Lys Ser Glu Lys Leu Asp Phe
275 280 285

Lys Asp Arg Val Gln Ser Lys Ile Gly Ser Leu Asp Asn Ile Thr His
290 295 300

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

Arg Glu Asn Ala Lys Ala Lys Thr Asp His Gly Ala Glu Ile Val Tyr
325 330 335

Lys Ser Pro Val Val Ser Gly Asp Thr Ser Pro Arg His Leu Ser Asn
340 345 350

Val Ser Ser Thr Gly Ser Ile Asp Met Val Asp Ser Pro Gln Leu Ala
355 360 365

Thr Leu Ala Asp Glu Val Ser Ala Ser Leu Ala Lys Gln Gly Leu
370 375 380

<210> 4
<211> 410
<212> PRT
<213> Homo sapiens

<400> 4

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Glu Ser Pro Leu
35 40 45

Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser
50 55 60

Asp Ala Lys Ser Thr Pro Thr Ala Glu Asp Val Thr Ala Pro Leu Val
65 70 75 80

Asp Glu Gly Ala Pro Gly Lys Gln Ala Ala Ala Gln Pro His Thr Glu
85 90 95

Ile Pro Glu Gly Thr Thr Ala Glu Glu Ala Gly Ile Gly Asp Thr Pro
100 105 110

Ser Leu Glu Asp Glu Ala Ala Gly His Val Thr Gln Ala Arg Met Val
115 120 125

Ser Lys Ser Lys Asp Gly Thr Gly Ser Asp Asp Lys Lys Ala Lys Gly
130 135 140

Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro Arg Gly Ala Ala Pro Pro
145 150 155 160

Gly Gln Lys Gly Gln Ala Asn Ala Thr Arg Ile Pro Ala Lys Thr Pro
165 170 175

Pro Ala Pro Lys Thr Pro Pro Ser Ser Gly Glu Pro Pro Lys Ser Gly
180 185 190

Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr Pro Gly Ser
195 200 205

Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr Arg Glu Pro Lys
210 215 220

Lys Val Ala Val Val Arg Thr Pro Pro Lys Ser Pro Ser Ser Ala Lys
225 230 235 240

Ser Arg Leu Gln Thr Ala Pro Val Pro Met Pro Asp Leu Lys Asn Val
245 250 255

Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys His Gln Pro Gly Gly
260 265 270

Gly Lys Val Gln Ile Val Tyr Lys Pro Val Asp Leu Ser Lys Val Thr
275 280 285

Ser Lys Cys Gly Ser Leu Gly Asn Ile His His Lys Pro Gly Gly Gly
290 295 300

Gln Val Glu Val Lys Ser Glu Lys Leu Asp Phe Lys Asp Arg Val Gln
305 310 315 320

Ser Lys Ile Gly Ser Leu Asp Asn Ile Thr His Val Pro Gly Gly Gly
325 330 335

Asn Lys Lys Ile Glu Thr His Lys Leu Thr Phe Arg Glu Asn Ala Lys
340 345 350

Ala Lys Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser Pro Val Val
355 360 365

Ser Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser Ser Thr Gly
370 375 380

Ser Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu Ala Asp Glu
385 390 395 400

Val Ser Ala Ser Leu Ala Lys Gln Gly Leu
405 410

<210> 5
<211> 381
<212> PRT
<213> Homo sapiens

<400> 5

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Glu Ser Pro Leu
35 40 45

Gln Thr Pro Thr Glu Asp Gly Ser Glu Glu Pro Gly Ser Glu Thr Ser
50 55 60

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

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

Arg Met Val Ser Lys Ser Lys Asp Gly Thr Gly Ser Asp Asp Lys Lys
100 105 110

Ala Lys Gly Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro Arg Gly Ala
115 120 125

Ala Pro Pro Gly Gln Lys Gly Gln Ala Asn Ala Thr Arg Ile Pro Ala
130 135 140

Lys Thr Pro Pro Ala Pro Lys Thr Pro Pro Ser Ser Gly Glu Pro Pro
145 150 155 160

Lys Ser Gly Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser Pro Gly Thr
165 170 175

Pro Gly Ser Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro Pro Thr Arg
180 185 190

Glu Pro Lys Lys Val Ala Val Val Arg Thr Pro Pro Lys Ser Pro Ser
195 200 205

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

Lys Asn Val Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu Lys His Gln
225 230 235 240

Pro Gly Gly Gly Lys Val Gln Ile Val Tyr Lys Pro Val Asp Leu Ser
245 250 255

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

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

Arg Val Gln Ser Lys Ile Gly Ser Leu Asp Asn Ile Thr His Val Pro

290

295

300

Gly Gly Gly Asn Lys Lys Ile Glu Thr His Lys Leu Thr Phe Arg Glu
305 310 315 320

Asn Ala Lys Ala Lys Thr Asp His Gly Ala Glu Ile Val Tyr Lys Ser
325 330 335

Pro Val Val Ser Gly Asp Thr Ser Pro Arg His Leu Ser Asn Val Ser
340 345 350

Ser Thr Gly Ser Ile Asp Met Val Asp Ser Pro Gln Leu Ala Thr Leu
355 360 365

Ala Asp Glu Val Ser Ala Ser Leu Ala Lys Gln Gly Leu
370 375 380

<210> 6
<211> 352
<212> PRT
<213> Homo sapiens

<400> 6

Met Ala Glu Pro Arg Gln Glu Phe Glu Val Met Glu Asp His Ala Gly
1 5 10 15

Thr Tyr Gly Leu Gly Asp Arg Lys Asp Gln Gly Gly Tyr Thr Met His
20 25 30

Gln Asp Gln Glu Gly Asp Thr Asp Ala Gly Leu Lys Ala Glu Glu Ala
35 40 45

Gly Ile Gly Asp Thr Pro Ser Leu Glu Asp Glu Ala Ala Gly His Val
50 55 60

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

Asp Lys Lys Ala Lys Gly Ala Asp Gly Lys Thr Lys Ile Ala Thr Pro
85 90 95

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

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

Glu Pro Pro Lys Ser Gly Asp Arg Ser Gly Tyr Ser Ser Pro Gly Ser
130 135 140

Pro Gly Thr Pro Gly Ser Arg Ser Arg Thr Pro Ser Leu Pro Thr Pro
145 150 155 160

Pro Thr Arg Glu Pro Lys Lys Val Ala Val Val Arg Thr Pro Pro Lys
165 170 175

Ser Pro Ser Ser Ala Lys Ser Arg Leu Gln Thr Ala Pro Val Pro Met
180 185 190

Pro Asp Leu Lys Asn Val Lys Ser Lys Ile Gly Ser Thr Glu Asn Leu
195 200 205

Lys His Gln Pro Gly Gly Gly Lys Val Gln Ile Val Tyr Lys Pro Val
210 215 220

Asp Leu Ser Lys Val Thr Ser Lys Cys Gly Ser Leu Gly Asn Ile His
225 230 235 240

His Lys Pro Gly Gly Gly Gln Val Glu Val Lys Ser Glu Lys Leu Asp
245 250 255

Phe Lys Asp Arg Val Gln Ser Lys Ile Gly Ser Leu Asp Asn Ile Thr
260 265 270

His Val Pro Gly Gly Gly Asn Lys Lys Ile Glu Thr His Lys Leu Thr
275 280 285

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

Tyr Lys Ser Pro Val Val Ser Gly Asp Thr Ser Pro Arg His Leu Ser
305 310 315 320

Asn Val Ser Ser Thr Gly Ser Ile Asp Met Val Asp Ser Pro Gln Leu
325 330 335

Ala Thr Leu Ala Asp Glu Val Ser Ala Ser Leu Ala Lys Gln Gly Leu
340 345 350

<210> 7

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 7

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Thr
100 105 110

<210> 8
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 8

Gly Phe Asn Ile Lys Asp Asp Tyr Met Asn
1 5 10

<210> 9
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 9

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

Gly

<210> 10

<400> 10
000

<210> 11
<211> 112
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 11

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

Leu Glu Leu Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105 110

<210> 12

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 12

Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly Ile Thr Tyr Leu Tyr
1 5 10 15

<210> 13

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 13

Gln Met Ser Asn Leu Ala Ser
1 5

<210> 14

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 14

Ala Gln Asn Leu Glu Leu Pro Leu Thr
1 5

<210> 15

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 15

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

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

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

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

<210> 16
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 16

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 17
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 17

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 18
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 18

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

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

<210> 19
 <211> 112
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthesized

<400> 19

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

50

55

60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 20

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 20

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

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

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

Gly Trp Val Asp Pro Glu Asp Gly Glu Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

100

105

110

<210> 21
 <211> 112
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthesized

<400> 21

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

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

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

Gly Trp Val Asp Pro Glu Asp Gly Glu Thr Glu Tyr Ala Ser Lys Phe
 50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 100 105 110

<210> 22
 <211> 112
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthesized

<400> 22

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

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

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

Gly Trp Val Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 23
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 23

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 24
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 24

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 25
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 25

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 26
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 26

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 27

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 27

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Tyr Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser

35

40

45

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

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

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

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

<210> 28

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 28

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
 20 25 30

Asn Gly Tyr Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
 35 40 45

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

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ala Gln Asn

85

90

95

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

<210> 29

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 29

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
 20 25 30

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

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

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

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

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

<210> 30

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 30

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

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

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

Gly Arg Ile Asp Pro Glu Asn Gly Glu Thr Ile Tyr Thr Pro Lys Phe
50 55 60

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

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

Val Ser Ser Gly Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
100 105 110

<210> 31

<211> 119

<212> PRT

<213> Homo sapiens

<400> 31

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

Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
20 25 30

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

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

Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp 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 Gly Tyr Arg Ser Pro Met Pro Thr Ala Asn Lys Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 32
<211> 114
<212> PRT
<213> Homo sapiens

<400> 32

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

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

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

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

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

Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys

85

90

95

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

Ser Ser

<210> 33
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 33

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

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

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

Gly Leu Val Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Glu Lys Phe
 50 55 60

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

<210> 34
 <211> 111
 <212> PRT
 <213> Artificial sequence

<220>

<223> Synthesized

<400> 34

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Arg
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Pro
35 40 45

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

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

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

Leu Glu Leu Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 35

<211> 112

<212> PRT

<213> Homo sapiens

<400> 35

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser

35

40

45

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

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

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

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

<210> 36

<211> 112

<212> PRT

<213> Homo sapiens

<400> 36

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

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

Asn Gly Ile Thr Phe Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
 35 40 45

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

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

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

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

<210> 37
<211> 112
<212> PRT
<213> Homo sapiens

<400> 37

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 38
<211> 393
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized

<400> 38
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tgcacagctt ctggctttaa cattaagac gactatatga actgggtgaa acagagacct	180
gaacggggcc tggagtggat tggatggatt gatcctgaga atgggtgatac tgaatatgcc	240
tcgaagttcc agggaaaggc cactatgact gcagacacat cctccaacac agcctacctg	300
cagttcagca gcctgacatc tgaggacact gccgtctatt actgtactac aagtaacggc	360
tggggccaag ggactctggg cactgtctct aca	393

<210> 39
 <211> 396
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Synthesized

<400> 39	
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atctcctgca ggtctagtaa gagtctccta catagtaatg gcatcactta tttgtattgg	180
tatctgcaga agccaggcca gtctcctcag ctctgattt atcagatgtc caaccttgcc	240
tcaggagtcc cagacaggtt cagtagcagt gggtcaggaa ctgatttcac actgagaatc	300
agcagagtgg aggctgagga tgtgggtgtt tattactgtg ctcaaaatct agaacttccg	360
ctcacgttcg gtgctgggac caagctggag ctgaaa	396

<210> 40
 <211> 5
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthesized

<400> 40

Asp Asp Tyr Met Asn	
1	5

<210> 41
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 41

Gly Phe Asn Ile Lys Asp Asp
1 5

<210> 42
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 42

Asp Pro Glu Asn Gly Asp
1 5

<210> 43
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 43

Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu
1 5 10

<210> 44
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 44

Lys Asp Asp Tyr Met Asn
1 5

<210> 45

<211> 13

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 45

Trp Ile Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu
1 5 10

<210> 46

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 46

Thr Thr Ser Asn
1

<210> 47

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 47

Ile Thr Tyr Leu Tyr Trp Tyr
1 5

<210> 48

<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 48

Leu Leu Ile Tyr Gln Met Ser Asn Leu Ala
1 5 10

<210> 49
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 49

Ala Gln Asn Leu Glu Leu Pro Leu
1 5

<210> 50
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 50

Gly Phe Thr Ile Lys Asp Asp Tyr Met Asn
1 5 10

<210> 51
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 51

Trp Val Asp Pro Glu Asp Gly Glu Thr Glu Tyr Ala Ser Lys Phe Gln
1 5 10 15

Gly

<210> 52
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 52

Trp Val Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe Gln
1 5 10 15

Gly

<210> 53
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 53

Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly Tyr Thr Tyr Leu Tyr
1 5 10 15

<210> 54
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 54

Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly Ile Asn Tyr Leu Tyr
1 5 10 15

<210> 55
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 55

Gln Gly Ser Asn Arg Ala Ser
1 5

<210> 56
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<220>
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<222> (1)..(1)
<223> Xaa = Gln or Glu

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa = Ser or Pro

<400> 56

Xaa Ile Val Tyr Lys Xaa
1 5

<210> 57
<211> 6
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 57

Gln Ile Val Tyr Lys Pro
1 5

<210> 58

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 58

Glu Ile Val Tyr Lys Ser Pro
1 5

<210> 59

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 59

Gly Ser Gly Ser Gly Ser Gly
1 5

<210> 60

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 60

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

<210> 61
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 61

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 62
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 62

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 63
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 63

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

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

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 64
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 64

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 65
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 65

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 66
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 66

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Glu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 67
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 67

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Glu Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 68

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 68

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 69
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 69

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Thr His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 70
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 70

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

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

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 71

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 71

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

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

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 72
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 72

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Gly Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 73
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 73

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Asn Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 74
<211> 112
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 74

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ala His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 75

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 75

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Thr Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 76
<211> 112
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<400> 76

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Ser Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 77
<211> 112
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<400> 77

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Arg Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 78
<211> 112
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<223> Synthesized

<400> 78

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Gln Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 79

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 79

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Thr Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 80
<211> 112
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<220>
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<400> 80

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Gly Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 81
<211> 112
<212> PRT
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<220>
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<400> 81

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

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

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 82
<211> 112

<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 82

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Gly Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 83
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 83

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Pro His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 84
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 84

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 85
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 85

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 86
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 86

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 87
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 87

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 88
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 88

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 89
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 89

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 90
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 90

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 91
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 91

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 92
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 92

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

Pro Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ala Gln Asn
85 90 95

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

<210> 93
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 93

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 94
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 94

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 95
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 95

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 96

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 96

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 97
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 97

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 98
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 98

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 99
<211> 112
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<213> Artificial sequence

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<223> Synthesized

<400> 99

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 100

<211> 112

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<400> 100

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 101
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 101

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 102
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 102

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 103
<211> 112
<212> PRT
<213> Artificial sequence

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<400> 103

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 104

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 104

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 105
<211> 112
<212> PRT
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<220>
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<400> 105

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 106
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 106

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 107
<211> 112

<212> PRT
<213> Artificial sequence

<220>
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<400> 107

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 108
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 108

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

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

Asn Gly Ile Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 109
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 109

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 110

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 110

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 111
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 111

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 112
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 112

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 113
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 113

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 114
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 114

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 115
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 115

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 116
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 116

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 117
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 117

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 118
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 118

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 119
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 119

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Asp
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 120
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 120

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Asn
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 121

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 121

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Gly
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 122
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 122

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

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

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

Gly Trp Val Asp Pro Glu Asp Gly Glu Thr Glu Tyr Ala Ser Lys Phe
50 55 60

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

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 123
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 123

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

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

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

Gly Trp Val Asp Pro Glu Asp Gly Glu Thr Glu Tyr Ala Ser Lys Phe
50 55 60

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

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 124
<211> 112
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 124

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 125

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 125

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Gln
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 126
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 126

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 127
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 127

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 128
<211> 112
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 128

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 129

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 129

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 130

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 130

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 131
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 131

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 132
<211> 112

<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 132

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 133
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 133

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 134
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 134

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 135
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 135

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 136
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 136

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 137
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 137

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Asp His Ser
20 25 30

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

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

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

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

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

<210> 138

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 138

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Asp His Ser
20 25 30

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

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

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

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

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

<210> 139
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 139

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 140
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 140

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

Pro Gln Leu Leu Ile Tyr Gln Lys Ser Asn Gly Ala Ser Gly Val Pro
50 55 60

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

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

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

<210> 141
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 141

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

Pro Gln Leu Leu Ile Tyr Gln Lys Ser Asn Gly Ala Ser Gly Val Pro
50 55 60

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

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

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

<210> 142
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 142

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 143
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 143

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 144
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 144

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 145
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 145

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 146

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 146

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 147

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 147

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 148
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 148

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 149
<211> 112
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 149

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Asp His Ser
20 25 30

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

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

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

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

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

<210> 150

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 150

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 151
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 151

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 152
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 152

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 153
<211> 112
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 153

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 154

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 154

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 155
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 155

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 156
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 156

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 157
<211> 112

<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 157

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ile His Ser
20 25 30

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

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

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

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

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

<210> 158
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 158

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 159
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 159

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 160

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 160

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 161
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 161

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 162
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 162

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 163
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 163

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 164
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 164

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 165
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 165

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 166
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 166

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 167

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 167

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

Pro Gln Leu Leu Ile Tyr Gln Lys Ser Asn Gly Ala Ser Gly Val Pro
50 55 60

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

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

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

<210> 168

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 168

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 169
<211> 112
<212> PRT
<213> Artificial sequence

<220>
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<400> 169

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Gly His Ser
20 25 30

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

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

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

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

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

<210> 170
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 170

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 171

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 171

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

Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Ser His Ser
20 25 30

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

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

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

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

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

<210> 172
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 172

Arg Ser Ser Lys Ser Asp Leu His Ser Asn Gly Ile Thr Tyr Leu Tyr
1 5 10 15

<210> 173
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 173

Arg Ser Ser Lys Ser Thr Leu His Ser Asn Gly Ile Thr Tyr Leu Tyr
1 5 10 15

<210> 174
<211> 16
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 174

Arg	Ser	Ser	Lys	Ser	Gln	Leu	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 175

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 175

Arg	Ser	Ser	Lys	Ser	Leu	Asp	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 176

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 176

Arg	Ser	Ser	Lys	Ser	Leu	Gly	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 177

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 177

Arg	Ser	Ser	Lys	Ser	Leu	Ser	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 178
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 178

Arg Ser Ser Lys Ser Leu Glu His Ser Asn Gly Ile Thr Tyr Leu Tyr
1 5 10 15

<210> 179
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 179

Arg Ser Ser Lys Ser Leu Thr His Ser Asn Gly Ile Thr Tyr Leu Tyr
1 5 10 15

<210> 180
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 180

Arg Ser Ser Lys Ser Leu Asn His Ser Asn Gly Ile Thr Tyr Leu Tyr
1 5 10 15

<210> 181
<211> 16
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 181

Arg	Ser	Ser	Lys	Ser	Leu	Ala	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 182

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 182

Arg	Ser	Ser	Lys	Ser	Leu	Pro	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 183

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 183

Arg	Ser	Ser	Lys	Ser	Leu	Ile	His	Ser	Asn	Gly	Ile	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 184

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 184

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Glu	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 185
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 185

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Lys	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 186
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 186

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Gly	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 187
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 187

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Gln	Thr	Tyr	Leu	Tyr
1				5					10					15	

<210> 188
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 188

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Ile	Gly	Tyr	Leu	Tyr
1				5					10					15	

<210> 189

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 189

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Ile	Thr	Tyr	Asn	Tyr
1				5					10					15	

<210> 190

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 190

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Ile	Thr	Tyr	Thr	Tyr
1				5					10					15	

<210> 191

<211> 16

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 191

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Ile	Thr	Tyr	Ser	Tyr
1				5					10					15	

<210> 192

<211> 16

<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 192

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Ile	Thr	Tyr	Arg	Tyr
1				5					10					15	

<210> 193
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 193

Arg	Ser	Ser	Lys	Ser	Leu	Leu	His	Ser	Asn	Gly	Ile	Thr	Tyr	Gly	Tyr
1				5					10					15	

<210> 194
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 194

Gln	Glu	Ser	Asn	Leu	Ala	Ser
1				5		

<210> 195
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 195

Gln Asp Ser Asn Leu Ala Ser
1 5

<210> 196
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 196

Gln Gly Ser Asn Leu Ala Ser
1 5

<210> 197
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 197

Gln Met Ser Asn Arg Ala Ser
1 5

<210> 198
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 198

Gln Gly Ser Asn Gly Ala Ser
1 5

<210> 199
<211> 7
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 199

Gln Gly Ser Asn Thr Ala Ser
1 5

<210> 200

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 200

Gln Lys Ser Asn Arg Ala Ser
1 5

<210> 201

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 201

Gln Lys Ser Asn Gly Ala Ser
1 5

<210> 202

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 202

Gln Ile Ser Asn Arg Ala Ser
1 5

<210> 203
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 203

Gln Ile Ser Asn Gly Ala Ser
1 5

<210> 204
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 204

Gln Glu Ser Asn Arg Ala Ser
1 5

<210> 205
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 205

Gln Glu Ser Asn Gly Ala Ser
1 5

<210> 206
<211> 9
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 206

Gly Gln Asn Leu Glu Leu Pro Leu Thr
1 5

<210> 207

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 207

Ala Gln Asn Asp Glu Leu Pro Leu Thr
1 5

<210> 208

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 208

Ala Gln Asn Glu Glu Leu Pro Leu Thr
1 5

<210> 209

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 209

Ala Gln Asn Gly Glu Leu Pro Leu Thr
1 5

<210> 210
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 210

Ala Gln Asn Gln Glu Leu Pro Leu Thr
1 5

<210> 211
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 211

Ala Gln Asn Thr Glu Leu Pro Leu Thr
1 5

<210> 212
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 212

Ala Gln Asn Ile Glu Leu Pro Leu Thr
1 5

<210> 213
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 213

Ala Gln Asn Leu Gly Leu Pro Leu Thr
1 5

<210> 214

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 214

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 215

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 215

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 216

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 216

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 217
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 217

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 218
<211> 117
<212> PRT
<213> Homo sapiens

<400> 218

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

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

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

Gly Leu Val Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Glu Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Asp 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 Ile Pro Leu Phe Gly Arg Asp His Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 219
<211> 112
<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 219

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Ala Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

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

<210> 220

<211> 17

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 220

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

Gly

<210> 221
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 221

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

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Phe Asn Ile Lys Asp Asp
20 25 30

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Ala Tyr Ala Ser Lys Phe
50 55 60

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

<210> 222
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 222

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

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Phe Asn Ile Lys Asp Asp
20 25 30

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Ala Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 223
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 223

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 224
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 224

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 225
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 225

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Lys Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

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

<210> 226
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 226

Ala Phe Asn Ile Lys Asp Asp Tyr Met Asn
1 5 10

<210> 227

<211> 17

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 227

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

Gly

<210> 228

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 228

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

Gln Pro Ala Ser Ile Ser Cys Thr Ser Ser Gln Ser Leu Leu His Ser
20 25 30

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

Pro Lys Leu Leu Ile Tyr Leu Val Ser Lys Leu Glu Ser Gly Val Pro
50 55 60

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

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

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

<210> 229
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 229

Thr Ser Ser Gln Ser Leu Leu His Ser Asn Arg Lys Thr Tyr Leu His
1 5 10 15

<210> 230
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 230

Leu Val Ser Lys Leu Glu Ser
1 5

<210> 231
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 231

Leu Gln Thr Thr His Phe Pro Arg Thr
1 5

<210> 232
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 232

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

Thr Val Lys Ile Ser Cys Lys Ala Ser Ala Phe Asn Ile Lys Asp Asp
20 25 30

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Lys Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Thr Asp 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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Arg
100 105 110

<210> 233
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 233

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

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

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

Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Ser Lys Phe
50 55 60

Gln Gly Lys Ala Thr Met Thr Ala Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Thr Thr Ser Asn Gly Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
100 105 110

<210> 234

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 234

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

Gln Pro Ala Ser Ile Ser Cys Thr Ser Ser Gln Ser Leu Leu His Ser
20 25 30

Asn Arg Lys Thr Tyr Leu His Trp Leu Leu Gln Lys Pro Gly Gln Pro

35

40

45

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

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

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

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

<210> 235

<211> 112

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 235

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

Gln Pro Ala Ser Ile Ser Cys Thr Ser Ser Gln Ser Leu Leu His Ser
 20 25 30

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

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

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Leu Gln Thr

85

90

95

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

<210> 236

<211> 119

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 236

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

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

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

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

Lys Gly Arg Val Thr Ile Thr Ala 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 Asn Val Phe Asp Gly Tyr Trp Leu Val Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 237

<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 237

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 Ser Ser Lys Ser Leu Leu His Ser
20 25 30

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

Pro Gln Leu Leu Ile Tyr Gln Met Ser Asn Leu Val Ser Gly Val Pro
50 55 60

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

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

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

<210> 238
<211> 112
<212> PRT
<213> Homo sapiens

<400> 238

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

Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
20 25 30

Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Pro
35 40 45

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

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

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

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

<210> 239
<211> 112
<212> PRT
<213> Homo sapiens

<400> 239

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

Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
20 25 30

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

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

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gly

85

90

95

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

<210> 240

<211> 114

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 240

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

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Tyr
 20 25 30

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

Trp Leu Ala Asn Ile Trp Trp Asp Asp Ile Lys Tyr Tyr Asn Ala Ala
 50 55 60

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

Phe Leu Lys Ile Ala Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
 85 90 95

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

Ser Ser

<210> 241

<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 241

Gly Phe Ser Leu Ser Thr Tyr Gly Met Gly Val Gly
1 5 10

<210> 242
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 242

Asn Ile Trp Trp Asp Asp Ile Lys Tyr Tyr Asn Ala Ala Leu Lys Ser
1 5 10 15

<210> 243
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 243

Asn Val Asp Tyr
1

<210> 244
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 244

Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asn Gly Asn Thr Phe Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
85 90 95

Thr Leu Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 245
<211> 16
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 245

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Phe Leu His
1 5 10 15

<210> 246
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 246

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 247

<211> 9

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 247

Ser Gln Ser Thr Leu Val Pro Trp Thr
1 5

<210> 248

<211> 114

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 248

Gln Val Thr Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Tyr
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Asn Ile Trp Trp Asp Asp Ile Lys Tyr Tyr Asn Ala Ala
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Asn Val Asp Tyr Trp Gly Gln Gly Thr Met Val Thr Val
100 105 110

Ser Leu

<210> 249
<211> 114
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 249

Gln Val Thr Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Tyr
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Asn Ile Trp Trp Asp Asp Ile Lys Tyr Tyr Asn Ala Ala
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Asn Val Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
100 105 110

Ser Ser

<210> 250
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 250

Asp Val 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 Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asn Gly Asn Thr Phe Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Ser Gln Ser
85 90 95

Thr Leu Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 251
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 251

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asn Gly Asn Thr Phe Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Ser Gln Ser
85 90 95

Thr Leu Val Pro Trp Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 252

<211> 118

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 252

Gln Ile Thr Leu Glu Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Ser Ser
20 25 30

Ala Met Ser Val Gly Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu

35

40

45

Trp Leu Ala His Ile Trp Trp Asn Asp Asp Lys Tyr Tyr Asn Pro Ala
 50 55 60

Leu Lys Ser Arg Leu Thr Val Ser Lys Asp Ser Ser Asp Asn Gln Val
 65 70 75 80

Phe Leu Lys Ile Ala Ser Val Val Thr Ala Asp Thr Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Ile Pro Gly Phe Gly Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Leu Thr Val Ser Ser
 115

<210> 253
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 253

Gln Val Thr Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
 1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

Gly Met Arg Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45

Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Phe Tyr Ser Thr Ser
 50 55 60

Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Leu Ala Val Ala Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Leu
115

<210> 254
<211> 113
<212> PRT
<213> Homo sapiens

<400> 254

Gln Val Thr Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Arg Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Phe Tyr Ser Thr Ser
50 55 60

Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Asn Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100 105 110

Ser

<210> 255
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 255

Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asn Gly Asn Thr Phe Leu Gln Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Met Glu Ala Glu Asp Leu Gly Ile Tyr Phe Cys Ser Gln Thr
85 90 95

Thr His Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 256
<211> 112
<212> PRT
<213> Homo sapiens

<400> 256

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 Ser Ser Gln Ser Leu Leu His Ser
20 25 30

Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
85 90 95

Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 257
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 257

Trp Ile Asp Pro Glu Asn Gly Asp Thr Ala
1 5 10

<210> 258
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 258

Trp Ile Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Ala
1 5 10

<210> 259
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 259

Ala Phe Asn Ile Lys Asp Asp
1 5

<210> 260
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 260

Trp Ile Asp Pro Glu Asn Gly Asp Thr Lys
1 5 10

<210> 261
<211> 13
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 261

Trp Ile Gly Trp Ile Asp Pro Glu Asn Gly Asp Thr Lys
1 5 10

<210> 262
<211> 7
<212> PRT
<213> Artificial sequence

<220>

<223> Synthesized

<400> 262

Lys Thr Tyr Leu His Trp Leu
1 5

<210> 263

<211> 10

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 263

Leu Leu Ile Tyr Leu Val Ser Lys Leu Glu
1 5 10

<210> 264

<211> 8

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 264

Leu Gln Thr Thr His Phe Pro Arg
1 5

<210> 265

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 265

Thr Tyr Gly Met Gly Val Gly
1 5

<210> 266
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 266

Gly Phe Ser Leu Ser Thr Tyr Gly Met
1 5

<210> 267
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 267

Trp Trp Asp Asp Ile
1 5

<210> 268
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 268

Asn Ile Trp Trp Asp Asp Ile Lys Tyr
1 5

<210> 269
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 269

Ser Thr Tyr Gly Met Gly Val Gly
1 5

<210> 270

<211> 12

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 270

Trp Leu Ala Asn Ile Trp Trp Asp Asp Ile Lys Tyr
1 5 10

<210> 271

<211> 5

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 271

Ala Arg Asn Val Asp
1 5

<210> 272

<211> 7

<212> PRT

<213> Artificial sequence

<220>

<223> Synthesized

<400> 272

Asn Thr Phe Leu His Trp Tyr
1 5

<210> 273

<211> 10

<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 273

Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe
1 5 10

<210> 274
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 274

Ser Gln Ser Thr Leu Val Pro Trp
1 5

<210> 275
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 275

Gly Phe Ser Leu Ser Thr Tyr Gly Met Gly Val Ser
1 5 10

<210> 276
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 276

Ile Val Tyr Lys
1

<210> 277
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> Synthesized

<400> 277

Glu Ile Val Tyr Lys Ser
1 5