

SEQUENCE LISTING

<110> GILEAD SCIENCES, INC.

<120> ANTIBODIES THAT TARGET HIV GP120 AND METHODS OF USE

<130> 1232.P2F

<140>

<141>

<150> 62/810,191

<151> 2019-02-25

<150> 62/693,642

<151> 2018-07-03

<160> 653

<170> PatentIn version 3.5

<210> 1

<211> 455

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 1

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

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asn Cys
20 25 30

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Met Tyr Ser Glu Thr Ala Phe
65 70 75 80

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

Thr Arg Gly Lys Tyr Cys Thr Ala Arg Asp Tyr Tyr Asn Trp Asp Phe
100 105 110

Glu His Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser Ala Ser Thr
115 120 125

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
130 135 140

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

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

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

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
195 200 205

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
210 215 220

Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
225 230 235 240

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
245 250 255

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
260 265 270

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
275 280 285

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
290 295 300

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
305 310 315 320

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
325 330 335

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
340 345 350

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
355 360 365

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

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
385 390 395 400

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
405 410 415

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
420 425 430

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
435 440 445

Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 2
<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 2

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe

165

170

175

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 3
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 3
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 4

<211> 455

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 4

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

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asn Cys
20 25 30

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Met Tyr Ser Glu Thr Ala Phe
65 70 75 80

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

Thr Arg Gly Lys Tyr Cys Thr Ala Arg Asp Tyr Tyr Asn Trp Asp Phe
100 105 110

Glu His Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser Ala Ser Thr
115 120 125

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
130 135 140

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
355 360 365

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

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
385 390 395 400

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
405 410 415

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
420 425 430

Cys Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser
435 440 445

Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 5

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 5

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Tyr Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 6
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 6
Gln Val Gln Leu Leu Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

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

130

135

140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 7

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 7

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 8
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 8
Gln Val Gln Leu Val Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly

115

120

125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 9
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 9
Gln Val Gln Leu Val Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 10

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 10

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val

100

105

110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 11

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 11

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 12

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 12

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala

85

90

95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 13

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 13

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 14

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 14

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr

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

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 15

<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 15
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Ala Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 16
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 16
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Trp Gly Gln Pro Asn Asn Pro Arg Gln Phe

50

55

60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys

450

<210> 17

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 17

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Gly Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 18

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 18

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val

35

40

45

Gly Trp Ile Asn Pro Lys Ala Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser

435

440

445

Leu Ser Pro Gly Lys
450

<210> 19

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 19

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys His Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 20
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 20
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

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

20

25

30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Thr Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser

420

425

430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 21

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 21

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 22

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 22

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

1	5	10	15
Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr	20	25	30
Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val	35	40	45
Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe	50	55	60
Gln Gly Arg Val Ser Leu Thr Arg Asp Ala Ser Trp Asp Phe Asp Thr	65	70	75
Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala	85	90	95
Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val	100	105	110
Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly	115	120	125
Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly	130	135	140
Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val	145	150	155
Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe	165	170	175
Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val	180	185	190
Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val	195	200	205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu

405

410

415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 23

<211> 449

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 23

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

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

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

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

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

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
130 135 140

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

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

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

Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
195 200 205

Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
210 215 220

Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro
225 230 235 240

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

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
260 265 270

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

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

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

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys
325 330 335

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

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

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

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

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

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

Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
435 440 445

Lys

<210> 24

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 24

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Ser Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr

385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 25
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 25
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 26

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 26

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala

370

375

380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 27

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 27

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 28
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 28
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln

355

360

365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 29

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 29

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 30

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 30

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro

340

345

350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 31

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 31

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 32

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 32

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu

325

330

335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 33

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 33

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Ala Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 34
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 34
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu

305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
450

<210> 35

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 35

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 36

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 36

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser

290

295

300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 37

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 37

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 38

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 38

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val

275

280

285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 39

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 39

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Ala Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 40

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 40

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Tyr Ser Phe Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val

260

265

270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 41
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 41
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 42

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 42

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

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

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

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

Tyr Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Phe Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr

245

250

255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
450

<210> 43

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 43

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 44

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 44

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu

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

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 45
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 45
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 46

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 46

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys

210

215

220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Leu Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Pro Glu Glu Gln Tyr Asn Ser
 290 295 300

Thr Leu Arg Val Val Ser Ile Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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

Pro Leu Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 47

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 47

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 48

<211> 210

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 48

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

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

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

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

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

Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr
85 90 95

Lys Val Gln Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
100 105 110

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

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
130 135 140

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

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

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

Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly

195

200

205

Glu Cys
210

<210> 49

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 49

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 50

<211> 208

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 50

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

Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala Trp Tyr
20 25 30

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

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

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

Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr Lys Val
85 90 95

Gln Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
100 105 110

Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
115 120 125

Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
130 135 140

Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
145 150 155 160

Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
165 170 175

Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
180 185 190

Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 51

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 51

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 52

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 52

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 53

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 53

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 54

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 54

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala

65		70		75		80									
Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Val	Val	Pro	Gly	Thr	Arg	Leu
			85						90					95	
Asp	Leu	Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro
			100					105					110		
Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu
		115					120					125			
Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn
	130					135					140				
Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser
145				150						155					160
Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala
			165						170					175	
Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	Gly
		180						185					190		
Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	Cys		
	195						200					205			

<210> 55
 <211> 206
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 55
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 56

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 56

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala

165

170

175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 57

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 57

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 58

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 58

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 59

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 59

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 60
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 60
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 61

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 61

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 62

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 62

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly

50

55

60

Thr Asp Phe Thr Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 63

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 63

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 64

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 64

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser

145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 65

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 65

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 66

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 66

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Ser Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 67

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 67

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 68

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 68

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 69

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 69

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Asn Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 70

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 70

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser

35

40

45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Ser Pro Gly Thr Asn Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 71

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 71

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Asn Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 72

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 72

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Val
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn

130

135

140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 73

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 73

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Val
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 74

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 74

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 75

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 75

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Val
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 76

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 76

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Val
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 77

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 77

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Asn Val
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 78
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 78
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr

20

25

30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Asn Val
 85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
 100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
 130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 79

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 79

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 80

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 80

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Arg Leu
85 90 95

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

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu

115

120

125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
 130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 81

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 81

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Leu
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 82

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 82

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Arg Leu
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 83

<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 83
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Asn Leu
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 84

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 84

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Asn Leu
85 90 95

Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 85

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 85

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 86

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 86

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

1	5	10	15
Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr	20	25	30
Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser	35	40	45
Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly	50	55	60
Gln Glu Tyr Ser Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala	65	70	75
Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu	85	90	95
Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro	100	105	110
Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu	115	120	125
Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn	130	135	140
Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser	145	150	155
Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala	165	170	175
Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly	180	185	190
Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys	195	200	205

<210> 87

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 87

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ser Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 88

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 88

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro

100

105

110

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 89

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 89

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ala Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 90

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 90

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys

195

200

205

<210> 91

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 91

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 92

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 92

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 93

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 93

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Gln Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 94

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 94

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Lys Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 95

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 95

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Phe Lys Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 96

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 96

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Ala Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu

85

90

95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
 130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 97

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 97

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Phe Ala Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 98

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 98

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly

180

185

190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 99

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 99

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 100

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 100

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 101

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 101

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 102

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 102

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 103

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 103

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 104

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 104

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala

65		70		75		80									
Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Phe	Gly	Pro	Gly	Thr	Arg	Leu
			85					90						95	
Asp	Leu	Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro
			100					105					110		
Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu
		115					120					125			
Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn
	130					135					140				
Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser
145					150					155					160
Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala
			165						170					175	
Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	Gly
			180					185					190		
Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	Cys		
	195						200					205			

<210> 105
 <211> 206
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 105
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 106

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 106

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala

165

170

175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 107

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 107

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
 85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 108

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 108

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 109

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 109

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 110
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 110
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 111

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 111

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 112

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 112

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly

50

55

60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 113

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 113

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 114

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 114

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser

145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 115

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 115

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 116

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 116

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 117

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 117

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 118

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 118

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 119

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 119

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 120

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 120

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser

35

40

45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 121

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 121

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 122

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 122

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn

130

135

140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 123

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 123

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 124

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 124

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 125

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 125

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 126

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 126

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 127

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 127

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 128

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 128

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr

20

25

30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
 130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 129

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 129

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
 50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
 85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
 130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 130

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 130

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

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

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

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu

115

120

125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 131

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 131

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

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

Gln Asp Tyr Ile Phe Ser Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 132

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 132

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 133

<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 133
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Phe Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 134

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 134

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

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

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

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

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

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 135

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 135

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

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

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

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

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

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

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 136

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 136

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

1	5	10	15
Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr	20	25	30
Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser	35	40	45
Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Phe Gly	50	55	60
Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala	65	70	75
Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu	85	90	95
Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro	100	105	110
Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu	115	120	125
Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn	130	135	140
Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser	145	150	155
Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala	165	170	175
Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly	180	185	190
Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys	195	200	205

<210> 137
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 137
Asp Tyr Phe Ile His
1 5

<210> 138
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 138
Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe Gln
1 5 10 15

Gly

<210> 139
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 139
Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
1 5 10

<210> 140
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 140
Gln Ala Asn Gly Tyr Leu Asn
1 5

<210> 141
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 141
Asp Gly Ser Lys Leu Glu Arg
1 5

<210> 142
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 142
Gln Val Tyr Glu Phe
1 5

<210> 143
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 143
Gly Tyr Asn Ile Arg Asp Tyr
1 5

<210> 144
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 144
Pro Lys Thr Gly
1

<210> 145
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 145
Arg Ser Asp Tyr Trp Asp Phe Asp
1 5

<210> 146
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 146
Asn Gly Tyr
1

<210> 147
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 147
Asp Gly Ser
1

<210> 148
<211> 2
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 148
Tyr Glu
1

<210> 149
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 149
Gly Tyr Asn Ile Arg Asp Tyr Phe
1 5

<210> 150
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 150
Ile Asn Pro Lys Thr Gly Gln Pro
1 5

<210> 151
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 151
Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
1 5 10

<210> 152
<211> 2
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 152
Gly Tyr
1

<210> 153
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 153
Asp His Phe Ile His
1 5

<210> 154
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 154
Gln Arg Ser Asp Phe Trp Asp Phe Asp Val
1 5 10

<210> 155
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 155
Gly Tyr Lys Ile Ser Asp His
1 5

<210> 156
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 156

Arg Ser Asp Phe Trp Asp Phe Asp
1 5

<210> 157

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 157

Gly Tyr Lys Ile Ser Asp His Phe
1 5

<210> 158

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 158

Ala Arg Gln Arg Ser Asp Phe Trp Asp Phe Asp Val
1 5 10

<210> 159

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 159

Asp Tyr Phe Met His
1 5

<210> 160
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 160
Trp Ile Asn Pro Lys Trp Gly Gln Pro Asn Asn Pro Arg Gln Phe Gln
1 5 10 15

Gly

<210> 161
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 161
Trp Ile Asn Pro Lys Gly Gly Gln Pro Asn Asn Pro Arg Gln Phe Gln
1 5 10 15

Gly

<210> 162
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 162
Trp Ile Asn Pro Lys Ala Gly Gln Pro Asn Asn Pro Arg Gln Phe Gln

1 5 10 15

Gly

<210> 163
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 163
Trp Ile Asn Pro Lys His Gly Gln Pro Asn Asn Pro Arg Gln Phe Gln
1 5 10 15

Gly

<210> 164
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 164
Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
1 5 10

<210> 165
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 165
Asp Ala Ser Lys Leu Glu Arg
1 5

<210> 166
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 166
Asp Gly Ser Asn Leu Glu Arg
1 5

<210> 167
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 167
Asp Gly Ser Lys Leu Glu Thr
1 5

<210> 168
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 168
Asp Ala Ser Asn Leu Glu Arg
1 5

<210> 169
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 169
Pro Lys Trp Gly
1

<210> 170
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 170
Pro Lys Gly Gly
1

<210> 171
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 171
Pro Lys Ala Gly
1

<210> 172
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 172
Pro Lys His Gly
1

<210> 173
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 173
Arg Thr Asp Tyr Trp Asp Phe Asp
1 5

<210> 174
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 174
Asp Ala Ser
1

<210> 175
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 175

Ile Asn Pro Lys Trp Gly Gln Pro

1 5

<210> 176

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 176

Ile Asn Pro Lys Gly Gly Gln Pro

1 5

<210> 177

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 177

Ile Asn Pro Lys Ala Gly Gln Pro

1 5

<210> 178

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 178

Ile Asn Pro Lys His Gly Gln Pro

1 5

<210> 179
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 179
Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
1 5 10

<210> 180
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 180
Asp Ala Ser
1

<210> 181
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 181
Gln Val Arg Leu Ser Gln Ser Gly Gly Gln Met Lys Lys Pro Gly Asp
1 5 10 15

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asn Cys
20 25 30

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Met Tyr Ser Glu Thr Ala Phe
65 70 75 80

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

Thr Arg Gly Lys Tyr Cys Thr Ala Arg Asp Tyr Tyr Asn Trp Asp Phe
100 105 110

Glu His Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser
115 120 125

<210> 182

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 182

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 183

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 183

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

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asn Cys
20 25 30

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Met Tyr Ser Glu Thr Ala Phe
65 70 75 80

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

Thr Arg Gly Lys Tyr Cys Thr Ala Arg Asp Tyr Tyr Asn Trp Asp Phe
100 105 110

Glu His Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser
115 120 125

<210> 184

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 184

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Tyr Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser

115

120

<210> 185

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 185

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 186

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 186

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 187

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 187

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 188

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 188

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 189

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 189

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 190

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 190

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala

85

90

95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
 115 120

<210> 191

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 191

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 192

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 192

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

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 193

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 193

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 194

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 194

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Ala Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 195

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 195

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Lys Trp Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 196

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 196

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

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Gly Gly Gln Pro Asn Asn Pro Arg Gln Phe

50

55

60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 197

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 197

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Ala Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 198

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 198

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys His Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 199

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 199

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 200

<211> 123

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 200
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 201
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 201

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg Asp Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 202

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 202

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr

20

25

30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
 35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Thr Phe Ser Phe Tyr
 65 70 75 80

Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val Trp Gly Ser Gly
 100 105 110

Thr Gln Val Thr Val Ser Ser
 115

<210> 203

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 203

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
 35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Ser Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 204

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 204

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 205

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 205

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 206

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 206

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 207

<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 207
Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 208
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 208

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 209

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 209

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 210

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 210

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 211

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 211

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 212

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 212

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Ala Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val

100

105

110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
 115 120

<210> 213

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 213

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Thr Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
 35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
 115 120

<210> 214
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 214
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 215
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 215

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 216

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 216

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 217

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 217

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Met His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
85 90 95

Thr Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 218

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 218

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Met His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg His Ala Ser Trp Asp Phe Asp Thr

65	70	75	80
Phe Ser Ala Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala			
	85	90	95
Thr Tyr Phe Cys Ala Arg Gln Arg Thr Asp Tyr Trp Asp Phe Asp Val			
	100	105	110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser			
	115	120	

<210> 219
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 219
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
 35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Tyr Ser Phe Tyr Met Asp Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 220

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 220

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Ser Asp His
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg Gln Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Tyr Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Phe Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 221
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 221
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 222
<211> 103
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 222

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Thr Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala
20 25 30

Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Val Ile Tyr Ser
35 40 45

Gly Ser Thr Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser Gly Ser Arg
50 55 60

Trp Gly Pro Asp Tyr Asn Leu Thr Ile Ser Asn Leu Glu Ser Gly Asp
65 70 75 80

Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr
85 90 95

Lys Val Gln Val Asp Ile Lys
100

<210> 223

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 223

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 224

<211> 101

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 224

Ser Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly Glu Thr
1 5 10 15

Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala Trp Tyr
20 25 30

Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Val Ile Tyr Ser Gly Ser
35 40 45

Thr Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Pro Asp Tyr Asn Leu Thr Ile Ser Asn Leu Glu Ser Gly Asp Phe Gly

65		70		75		80									
Val	Tyr	Tyr	Cys	Gln	Gln	Tyr	Glu	Phe	Phe	Gly	Gln	Gly	Thr	Lys	Val
			85					90						95	

Gln Val Asp Ile Lys
100

<210> 225
 <211> 99
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400>	225														
Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10						15	

Asp	Thr	Val	Thr	Ile	Thr	Cys	Gln	Ala	Asn	Gly	Tyr	Leu	Asn	Trp	Tyr
		20						25					30		

Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr	Asp	Gly	Ser
		35					40					45			

Lys	Leu	Glu	Arg	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Arg	Arg	Trp	Gly
	50					55					60				

Gln	Glu	Tyr	Asn	Leu	Thr	Ile	Asn	Asn	Leu	Gln	Pro	Glu	Asp	Ile	Ala
65					70					75					80

Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Val	Val	Pro	Gly	Thr	Lys	Val
				85					90					95	

Asp Ile Lys

<210> 226
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 226
Glu Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 227
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 227

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 228

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 228

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 229

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 229

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Ala Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 230

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 230

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 231

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 231

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Ala Ser
35 40 45

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 232

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 232

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr

20

25

30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 233

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 233

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 234

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 234

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 235
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 235
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 236
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 236

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 237

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 237

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly
50 55 60

Thr Asp Phe Thr Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 238

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 238

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Val Pro Gly Thr Arg Leu

85

90

95

Asp Leu Lys

<210> 239

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 239

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 240

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 240

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 241

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 241

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Ser Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 242

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 242

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 243

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 243

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Leu
85 90 95

Asp Leu Lys

<210> 244
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 244
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Asn Leu
85 90 95

Asp Leu Lys

<210> 245
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 245

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Ser Pro Gly Thr Asn Leu
85 90 95

Asp Leu Lys

<210> 246

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 246

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser

35

40

45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Asn Leu
 85 90 95

Asp Leu Lys

<210> 247

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 247

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Val
85 90 95

Asp Leu Lys

<210> 248

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 248

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Val
85 90 95

Asp Leu Lys

<210> 249

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 249

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Ile Lys

<210> 250

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 250

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Val
85 90 95

Asp Ile Lys

<210> 251

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 251

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Val
85 90 95

Asp Ile Lys

<210> 252

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 252

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Asn Val
85 90 95

Asp Ile Lys

<210> 253
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 253
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Asn Val
85 90 95

Asp Ile Lys

<210> 254
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 254

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Leu
85 90 95

Asp Leu Lys

<210> 255

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 255

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 256

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 256

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Asn Leu
85 90 95

Asp Ile Lys

<210> 257

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 257

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Asn Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Arg Leu
85 90 95

Asp Ile Lys

<210> 258

<211> 99

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 258
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Gly Pro Gly Thr Asn Leu
85 90 95

Asp Ile Lys

<210> 259
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 259
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Thr Pro Gly Thr Asn Leu
85 90 95

Asp Ile Lys

<210> 260

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 260

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly

50

55

60

Gln Glu Tyr Thr Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 261

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 261

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ser Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 262

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 262

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ser Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 263

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 263

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ala Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 264

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 264

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ala Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 265
<211> 100
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 265
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg
100

<210> 266
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 266
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 267

<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 267
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Gln Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 268
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 268
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

1	5	10	15
Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr	20	25	30
Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser	35	40	45
Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly	50	55	60
Gln Glu Tyr Gln Phe Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala	65	70	75
Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu	85	90	95

Asp Leu Lys

<210> 269
 <211> 99
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 269
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr	20	25	30
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Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser	35	40	45
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Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Lys Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 270

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 270

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Phe Lys Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 271

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 271

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Ala Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 272

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 272

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Phe Ala Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 273

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 273

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 274

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 274

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala

65		70		75		80									
Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Val	Val	Pro	Gly	Thr	Arg	Leu
			85						90					95	

Asp Leu Lys

<210> 275
 <211> 99
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400>	275														
Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10						15	

Asp	Thr	Ala	Thr	Ile	Thr	Cys	Gln	Ala	Asn	Gly	Tyr	Leu	Asn	Trp	Tyr
		20						25					30		

Gln	Gln	Arg	Arg	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr	Asp	Gly	Ser
		35					40					45			

Lys	Leu	Glu	Arg	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Arg	Arg	Trp	Gly
	50					55					60				

Gln	Glu	Tyr	Thr	Leu	Thr	Ile	Asn	Asn	Leu	Gln	Pro	Glu	Asp	Ile	Ala
65					70					75					80

Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Val	Val	Pro	Gly	Thr	Arg	Leu
			85						90					95	

Asp Leu Lys

<210> 276
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 276
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 277
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 277

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 278

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 278

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 279

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 279

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 280

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 280

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 281

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 281

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 282

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 282

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr

20

25

30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 283

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 283

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 284

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 284

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 285
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 285
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 286
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 286

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 287

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 287

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 288

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 288

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu

85

90

95

Asp Leu Lys

<210> 289

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 289

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 290

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 290

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 291

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 291

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 292

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 292

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 293

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 293

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 294
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 294
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 295
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 295

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 296

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 296

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser

35

40

45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
 50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

Asp Leu Lys

<210> 297

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 297

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
 50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 298

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 298

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 299

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 299

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 300

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 300

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 301

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 301

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 302

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 302

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 303
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 303
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 304
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 304

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 305

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 305

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 306

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 306

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Thr Arg Arg Gly
50 55 60

Gln Asp Tyr Ile Phe Ser Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 307

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 307

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 308

<211> 99

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 308
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Phe Gly
50 55 60

Gln Lys Tyr Gln Leu Ser Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 309
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 309
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 310

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 310

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Phe Gly

50

55

60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 311

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 311

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 312

<400> 312
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<210> 313

<400> 313
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<210> 314

<400> 314
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<210> 315

<400> 315
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<210> 316

<400> 316
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<210> 317

<400> 317
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<210> 318

<400> 318
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<210> 319

<400> 319
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<210> 320
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 320
Gly Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn
1 5 10 15

<210> 321
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 321
Val Thr Ile Thr Cys Gln Ala Asn Gly
1 5

<210> 322

<400> 322
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<210> 323

<400> 323
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<210> 324

<400> 324
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<210> 325

<400> 325
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<210> 326

<400> 326
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<210> 327

<400> 327
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<210> 328

<400> 328
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<210> 329

<400> 329
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<210> 330

<400> 330
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<210> 331

<400> 331
000

<210> 332

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

peptide"

<400> 332

Thr Arg Arg Gly Gln Gln Tyr Asn Leu Thr
1 5 10

<210> 333

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 333

Arg Arg Trp Gly Gln Asn Tyr Asn Phe Thr
1 5 10

<210> 334

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 334

Thr Arg Arg Gly Gln Asp Tyr Ile Phe Ser
1 5 10

<210> 335

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 335

Arg Arg Arg Gly Gln Asp Tyr Ile Leu Ala
1 5 10

<210> 336
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 336
Arg Arg Arg Gly Gln Asn Tyr Thr Phe Thr
1 5 10

<210> 337
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 337
Arg Arg Phe Gly Gln Asp Tyr Ile Leu Thr
1 5 10

<210> 338
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 338
Thr Arg Phe Gly Gln Asn Tyr Ser Leu Gln
1 5 10

<210> 339
<211> 10
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 339

Thr	Arg	Arg	Gly	Gln	Asn	Tyr	Thr	Leu	Ala
1				5				10	

<210> 340

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 340

Thr	Arg	Arg	Gly	Gln	Gln	Tyr	Thr	Leu	Pro
1				5				10	

<210> 341

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 341

Thr	Arg	Arg	Gly	Gln	Asp	Tyr	Ile	Leu	Ala
1				5				10	

<210> 342

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

peptide"

<400> 342

Ser Arg Phe Gly Gln Lys Tyr Gln Leu Ser
1 5 10

<210> 343

<211> 849

<212> PRT

<213> Human immunodeficiency virus 1

<400> 343

Met Lys Val Met Gly Thr Lys Lys Asn Tyr Gln His Leu Trp Arg Trp
1 5 10 15

Gly Ile Met Leu Leu Gly Met Leu Met Met Ser Ser Ala Ala Glu Gln
20 25 30

Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Arg Glu Ala Asn
35 40 45

Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu Val
50 55 60

His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Asn Pro
65 70 75 80

Gln Glu Val Val Met Gly Asn Val Thr Glu Asp Phe Asn Met Trp Lys
85 90 95

Asn Asn Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp Asp
100 105 110

Gln Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys Val Thr Leu
115 120 125

His Cys Thr Asn Val Thr Ile Ser Ser Thr Asn Gly Ser Thr Ala Asn
130 135 140

Val Thr Met Arg Glu Glu Met Lys Asn Cys Ser Phe Asn Thr Thr Thr

145		150		155		160									
Val	Ile	Arg	Asp	Lys	Ile	Gln	Lys	Glu	Tyr	Ala	Leu	Phe	Tyr	Lys	Leu
				165					170					175	
Asp	Ile	Val	Pro	Ile	Glu	Gly	Lys	Asn	Thr	Asn	Thr	Ser	Tyr	Arg	Leu
			180					185					190		
Ile	Asn	Cys	Asn	Thr	Ser	Val	Ile	Thr	Gln	Ala	Cys	Pro	Lys	Val	Ser
		195					200					205			
Phe	Glu	Pro	Ile	Pro	Ile	His	Tyr	Cys	Ala	Pro	Ala	Gly	Phe	Ala	Ile
	210					215					220				
Leu	Lys	Cys	Asn	Asn	Lys	Thr	Phe	Asn	Gly	Lys	Gly	Pro	Cys	Arg	Asn
225					230					235					240
Val	Ser	Thr	Val	Gln	Cys	Thr	His	Gly	Ile	Lys	Pro	Val	Val	Ser	Thr
				245					250					255	
Gln	Leu	Leu	Leu	Asn	Gly	Ser	Leu	Ala	Glu	Glu	Asp	Ile	Ile	Ile	Arg
			260					265					270		
Ser	Glu	Asn	Phe	Thr	Asn	Asn	Gly	Lys	Asn	Ile	Ile	Val	Gln	Leu	Lys
		275					280					285			
Glu	Pro	Val	Lys	Ile	Asn	Cys	Thr	Arg	Pro	Gly	Asn	Asn	Thr	Arg	Arg
	290					295					300				
Ser	Ile	Asn	Ile	Gly	Pro	Gly	Arg	Ala	Phe	Tyr	Ala	Thr	Gly	Ala	Ile
305					310					315				320	
Ile	Gly	Asp	Ile	Arg	Lys	Ala	His	Cys	Asn	Ile	Ser	Thr	Glu	Gln	Trp
				325					330					335	
Asn	Asn	Thr	Leu	Thr	Gln	Ile	Val	Asp	Lys	Leu	Arg	Glu	Gln	Phe	Gly
			340					345					350		

Asn Lys Thr Ile Ile Phe Asn Gln Ser Ser Gly Gly Asp Pro Glu Val
355 360 365

Val Met His Thr Phe Asn Cys Gly Gly Glu Phe Phe Tyr Cys Asn Ser
370 375 380

Thr Gln Leu Phe Asn Ser Thr Trp Phe Asn Asn Gly Thr Ser Thr Trp
385 390 395 400

Asn Ser Thr Ala Asp Asn Ile Thr Leu Pro Cys Arg Ile Lys Gln Val
405 410 415

Ile Asn Met Trp Gln Glu Val Gly Lys Ala Met Tyr Ala Pro Pro Ile
420 425 430

Arg Gly Gln Ile Asp Cys Ser Ser Asn Ile Thr Gly Leu Ile Leu Thr
435 440 445

Arg Asp Gly Gly Ser Asn Ser Ser Gln Asn Glu Thr Phe Arg Pro Gly
450 455 460

Gly Gly Asn Met Lys Asp Asn Trp Arg Ser Glu Leu Tyr Lys Tyr Lys
465 470 475 480

Val Val Lys Ile Glu Pro Leu Gly Ile Ala Pro Thr Arg Ala Lys Arg
485 490 495

Arg Val Val Gln Arg Glu Lys Arg Ala Val Thr Leu Gly Ala Val Phe
500 505 510

Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly Ala Ala Ser Leu
515 520 525

Thr Leu Thr Val Gln Ala Arg Leu Leu Leu Ser Gly Ile Val Gln Gln
530 535 540

Gln Ser Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Met Leu Gln

545		550		555		560
Leu Thr Val Trp	Gly Ile Lys Gln Leu	Gln Ala Arg Val	Leu Ala Ile			
	565		570			575
Glu Arg Tyr	Leu Lys Asp Gln Gln	Leu Leu Gly Ile Trp	Gly Cys Ser			
	580		585			590
Gly Lys	Leu Ile Cys Thr Thr	Thr Val Pro Trp Asn	Thr Ser Trp Ser			
	595		600			605
Asn Lys Ser Tyr Asp Tyr	Ile Trp Asn Asn Met	Thr Trp Met Gln Trp				
	610		615			620
Glu Arg Glu Ile Asp	Asn Tyr Thr Gly Phe	Ile Tyr Thr Leu Ile	Glu			
625		630		635		640
Glu Ser Gln Asn	Gln Gln Glu Lys Asn	Glu Leu Glu Leu Leu	Glu Leu			
	645		650			655
Asp Lys Trp	Ala Ser Leu Trp Asn Trp	Phe Asn Ile Thr	Asn Trp Leu			
	660		665			670
Trp Tyr	Ile Lys Leu Phe	Ile Met Ile Ile Gly Gly	Leu Val Gly Leu			
	675		680			685
Arg Ile Val Cys	Ala Val Leu Ser Ile	Val Asn Arg Val Arg	Gln Gly			
	690		695			700
Tyr Ser Pro	Leu Ser Phe Gln Thr Arg	Leu Pro Asn Pro Arg	Gly Pro			
705		710		715		720
Asp Arg Pro	Glu Glu Thr Glu Gly	Glu Gly Gly Glu Arg	Asp Arg Asp			
	725		730			735
Arg Ser Ala	Arg Leu Val Asn Gly	Phe Leu Ala Ile Ile	Trp Asp Asp			
	740		745			750

Leu Arg Ser Leu Cys Leu Phe Ser Tyr His Arg Leu Arg Asp Leu Leu
755 760 765

Leu Ile Val Ala Arg Val Val Glu Ile Leu Gly Arg Arg Gly Trp Glu
770 775 780

Ile Leu Lys Tyr Trp Trp Asn Leu Leu Lys Tyr Trp Ser Gln Glu Leu
785 790 795 800

Lys Asn Ser Ala Val Ser Leu Leu Asn Val Thr Ala Ile Ala Val Ala
805 810 815

Glu Gly Thr Asp Arg Val Ile Glu Ile Val Gln Arg Ala Val Arg Ala
820 825 830

Ile Leu His Ile Pro Thr Arg Ile Arg Gln Gly Phe Glu Arg Ala Leu
835 840 845

Leu

<210> 344

<211> 475

<212> PRT

<213> Human immunodeficiency virus 1

<400> 344

Ala Glu Gln Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Arg
1 5 10 15

Glu Ala Asn Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp
20 25 30

Thr Glu Val His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp
35 40 45

Pro Asn Pro Gln Glu Val Val Met Gly Asn Val Thr Glu Asp Phe Asn
50 55 60

Met Trp Lys Asn Asn Met Val Glu Gln Met His Glu Asp Ile Ile Ser
65 70 75 80

Leu Trp Asp Gln Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys
85 90 95

Val Thr Leu His Cys Thr Asn Val Thr Ile Ser Ser Thr Asn Gly Ser
100 105 110

Thr Ala Asn Val Thr Met Arg Glu Glu Met Lys Asn Cys Ser Phe Asn
115 120 125

Thr Thr Thr Val Ile Arg Asp Lys Ile Gln Lys Glu Tyr Ala Leu Phe
130 135 140

Tyr Lys Leu Asp Ile Val Pro Ile Glu Gly Lys Asn Thr Asn Thr Ser
145 150 155 160

Tyr Arg Leu Ile Asn Cys Asn Thr Ser Val Ile Thr Gln Ala Cys Pro
165 170 175

Lys Val Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala Gly
180 185 190

Phe Ala Ile Leu Lys Cys Asn Asn Lys Thr Phe Asn Gly Lys Gly Pro
195 200 205

Cys Arg Asn Val Ser Thr Val Gln Cys Thr His Gly Ile Lys Pro Val
210 215 220

Val Ser Thr Gln Leu Leu Leu Asn Gly Ser Leu Ala Glu Glu Asp Ile
225 230 235 240

Ile Ile Arg Ser Glu Asn Phe Thr Asn Asn Gly Lys Asn Ile Ile Val
245 250 255

Gln Leu Lys Glu Pro Val Lys Ile Asn Cys Thr Arg Pro Gly Asn Asn

260

265

270

Thr Arg Arg Ser Ile Asn Ile Gly Pro Gly Arg Ala Phe Tyr Ala Thr
 275 280 285

Gly Ala Ile Ile Gly Asp Ile Arg Lys Ala His Cys Asn Ile Ser Thr
 290 295 300

Glu Gln Trp Asn Asn Thr Leu Thr Gln Ile Val Asp Lys Leu Arg Glu
 305 310 315 320

Gln Phe Gly Asn Lys Thr Ile Ile Phe Asn Gln Ser Ser Gly Gly Asp
 325 330 335

Pro Glu Val Val Met His Thr Phe Asn Cys Gly Gly Glu Phe Phe Tyr
 340 345 350

Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Phe Asn Asn Gly Thr
 355 360 365

Ser Thr Trp Asn Ser Thr Ala Asp Asn Ile Thr Leu Pro Cys Arg Ile
 370 375 380

Lys Gln Val Ile Asn Met Trp Gln Glu Val Gly Lys Ala Met Tyr Ala
 385 390 395 400

Pro Pro Ile Arg Gly Gln Ile Asp Cys Ser Ser Asn Ile Thr Gly Leu
 405 410 415

Ile Leu Thr Arg Asp Gly Gly Ser Asn Ser Ser Gln Asn Glu Thr Phe
 420 425 430

Arg Pro Gly Gly Gly Asn Met Lys Asp Asn Trp Arg Ser Glu Leu Tyr
 435 440 445

Lys Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Ile Ala Pro Thr Arg
 450 455 460

Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg
465 470 475

<210> 345

<211> 481

<212> PRT

<213> Human immunodeficiency virus 1

<400> 345

Thr Glu Lys Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Lys
1 5 10 15

Glu Ala Thr Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp
20 25 30

Thr Glu Val His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp
35 40 45

Pro Asn Pro Gln Glu Val Val Leu Val Asn Val Thr Glu Asn Phe Asn
50 55 60

Met Trp Lys Asn Asp Met Val Glu Gln Met His Glu Asp Ile Ile Ser
65 70 75 80

Leu Trp Asp Gln Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys
85 90 95

Val Ser Leu Lys Cys Thr Asp Leu Lys Asn Asp Thr Asn Thr Asn Ser
100 105 110

Ser Ser Gly Arg Met Ile Met Glu Lys Gly Glu Ile Lys Asn Cys Ser
115 120 125

Phe Asn Ile Ser Thr Ser Ile Arg Gly Lys Val Gln Lys Glu Tyr Ala
130 135 140

Phe Phe Tyr Lys Leu Asp Ile Ile Pro Ile Asp Asn Asp Thr Thr Ser
145 150 155 160

Tyr Lys Leu Thr Ser Cys Asn Thr Ser Val Ile Thr Gln Ala Cys Pro
165 170 175

Lys Val Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala Gly
180 185 190

Phe Ala Ile Leu Lys Cys Asn Asn Lys Thr Phe Asn Gly Thr Gly Pro
195 200 205

Cys Thr Asn Val Ser Thr Val Gln Cys Thr His Gly Ile Arg Pro Val
210 215 220

Val Ser Thr Gln Leu Leu Leu Asn Gly Ser Leu Ala Glu Glu Glu Val
225 230 235 240

Val Ile Arg Ser Val Asn Phe Thr Asp Asn Ala Lys Thr Ile Ile Val
245 250 255

Gln Leu Asn Thr Ser Val Glu Ile Asn Cys Thr Arg Pro Asn Asn Asn
260 265 270

Thr Arg Lys Arg Ile Arg Ile Gln Arg Gly Pro Gly Arg Ala Phe Val
275 280 285

Thr Ile Gly Lys Ile Gly Asn Met Arg Gln Ala His Cys Asn Ile Ser
290 295 300

Arg Ala Lys Trp Asn Asn Thr Leu Lys Gln Ile Ala Ser Lys Leu Arg
305 310 315 320

Glu Gln Phe Gly Asn Asn Lys Thr Ile Ile Phe Lys Gln Ser Ser Gly
325 330 335

Gly Asp Pro Glu Ile Val Thr His Ser Phe Asn Cys Gly Gly Glu Phe
340 345 350

Phe Tyr Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Phe Asn Ser

355

360

365

Thr Trp Ser Thr Glu Gly Ser Asn Asn Thr Glu Gly Ser Asp Thr Ile
 370 375 380

Thr Leu Pro Cys Arg Ile Lys Gln Ile Ile Asn Met Trp Gln Lys Val
 385 390 395 400

Gly Lys Ala Met Tyr Ala Pro Pro Ile Ser Gly Gln Ile Arg Cys Ser
 405 410 415

Ser Asn Ile Thr Gly Leu Leu Leu Thr Arg Asp Gly Gly Asn Ser Asn
 420 425 430

Asn Glu Ser Glu Ile Phe Arg Pro Gly Gly Gly Asp Met Arg Asp Asn
 435 440 445

Trp Arg Ser Glu Leu Tyr Lys Tyr Lys Val Val Lys Ile Glu Pro Leu
 450 455 460

Gly Val Ala Pro Thr Lys Ala Lys Arg Arg Val Val Gln Arg Glu Lys
 465 470 475 480

Arg

<210> 346

<211> 35

<212> PRT

<213> Human immunodeficiency virus 1

<400> 346

Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys Ser Ile His Ile Gly Pro
 1 5 10 15

Gly Arg Ala Phe Tyr Thr Thr Gly Glu Ile Ile Gly Asp Ile Arg Gln
 20 25 30

Ala His Cys

<210> 347

<211> 330

<212> PRT

<213> Homo sapiens

<400> 347

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu

165

170

175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 325 330

<210> 348

<211> 330

<212> PRT

<213> Homo sapiens

<400> 348

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys

1	5	10	15
Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr	20	25	30
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser	35	40	45
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser	50	55	60
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr	65	70	75
Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys	85	90	95
Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys	100	105	110
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro	115	120	125
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys	130	135	140
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp	145	150	155
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu	165	170	175
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu	180	185	190
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn	195	200	205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 349

<211> 107

<212> PRT

<213> Homo sapiens

<400> 349

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1 5 10 15

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Val Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Leu Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 350

<211> 107

<212> PRT

<213> Homo sapiens

<400> 350

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1 5 10 15

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Leu Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 351
<211> 107
<212> PRT
<213> Homo sapiens

<400> 351
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1 5 10 15

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 352
<211> 106
<212> PRT
<213> Homo sapiens

<400> 352
Gly Gln Pro Lys Ala Asn Pro Thr Val Thr Leu Phe Pro Pro Ser Ser
1 5 10 15

Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp
20 25 30

Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly Ser Pro

35

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Val Lys Ala Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser Asn Asn
 50 55 60

Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys
 65 70 75 80

Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val
 85 90 95

Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
 100 105

<210> 353

<211> 106

<212> PRT

<213> Homo sapiens

<400> 353

Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser
 1 5 10 15

Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp
 20 25 30

Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro
 35 40 45

Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn
 50 55 60

Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys
 65 70 75 80

Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val
 85 90 95

Glu Lys Thr Val Ala Pro Thr Glu Cys Ser

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<210> 354
<211> 106
<212> PRT
<213> Homo sapiens

<400> 354

Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser
1 5 10 15

Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp
20 25 30

Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro
35 40 45

Ala Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn
50 55 60

Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys
65 70 75 80

Ser His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val
85 90 95

Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
100 105

<210> 355
<211> 106
<212> PRT
<213> Homo sapiens

<400> 355

Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser
1 5 10 15

Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Val Ser Asp
20 25 30

Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly Ser Pro
35 40 45

Val Lys Val Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser Asn Asn
50 55 60

Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys
65 70 75 80

Ser His Arg Ser Tyr Ser Cys Arg Val Thr His Glu Gly Ser Thr Val
85 90 95

Glu Lys Thr Val Ala Pro Ala Glu Cys Ser
100 105

<210> 356

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<210> 427

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 427

Gly Gly Gly Ser

1

<210> 428

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 428

Ser Gly Gly Gly

1

<210> 429

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 429

Gly Gly Gly Gly Ser

1

5

<210> 430

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

peptide"

<400> 430

Ser Gly Gly Gly Gly

1 5

<210> 431

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 431

Gly Gly Gly Gly Gly Ser

1 5

<210> 432

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 432

Ser Gly Gly Gly Gly Gly

1 5

<210> 433

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 433

Gly Gly Gly Gly Gly Gly Ser

1 5

<210> 434
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 434
Ser Gly Gly Gly Gly Gly Gly
1 5

<210> 435
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 435
Gly Gly Gly Gly Ser
1 5

<210> 436
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 436
Ser Gly Gly Gly Gly
1 5

<210> 437
<211> 330
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 437

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 438

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 438

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 439

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 439

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Asp Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 440

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 440

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Asp Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 442

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 442

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr

65		70		75		80									
Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys
			85					90						95	
Lys	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys
			100					105					110		
Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Leu	Pro	Pro
		115					120					125			
Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys
	130					135					140				
Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp
145					150					155					160
Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Pro	Glu
			165						170					175	
Glu	Gln	Tyr	Asn	Ser	Thr	Leu	Arg	Val	Val	Ser	Ile	Leu	Thr	Val	Leu
			180					185					190		
His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn
		195					200					205			
Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly
	210					215					220				
Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu
225					230					235				240	
Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr
			245						250					255	
Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn
			260					265					270		

Asn Tyr Lys Thr Thr Pro Leu Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 443

<211> 462

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 443

Gln Met Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Ala Ser Ile Ser Asp Ser
20 25 30

Tyr Trp Ser Trp Ile Arg Arg Ser Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Val His Lys Ser Gly Asp Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val His Leu Ser Leu Asp Thr Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Ser Leu Thr Gly Val Thr Ala Ala Asp Ser Gly Lys Tyr Tyr Cys Ala
85 90 95

Arg Thr Leu His Gly Arg Arg Ile Tyr Gly Ile Val Ala Phe Asn Glu
100 105 110

Trp Phe Thr Tyr Phe Tyr Met Asp Val Trp Gly Thr Gly Thr Gln Val
115 120 125

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
130 135 140

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
145 150 155 160

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
165 170 175

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
180 185 190

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
195 200 205

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
210 215 220

Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser
340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
435 440 445

Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 444

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 444
Asp Ser Tyr Trp Ser
1 5

<210> 445
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 445
Tyr Val His Lys Ser Gly Asp Thr Asn Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 446
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 446
Thr Leu His Gly Arg Arg Ile Tyr Gly Ile Val Ala Phe Asn Glu Trp
1 5 10 15

Phe Thr Tyr Phe Tyr Met Asp Val
20

<210> 447
<211> 211
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 447

Ser Asp Ile Ser Val Ala Pro Gly Glu Thr Ala Arg Ile Ser Cys Gly
1 5 10 15

Glu Lys Ser Leu Gly Ser Arg Ala Val Gln Trp Tyr Gln His Arg Ala
20 25 30

Gly Gln Ala Pro Ser Leu Ile Ile Tyr Asn Asn Gln Asp Arg Pro Ser
35 40 45

Gly Ile Pro Glu Arg Phe Ser Gly Ser Pro Asp Ser Arg Pro Gly Thr
50 55 60

Thr Ala Thr Leu Thr Ile Thr Ser Val Glu Ala Gly Asp Glu Ala Asp
65 70 75 80

Tyr Tyr Cys His Ile Trp Asp Ser Arg Val Pro Thr Lys Trp Val Phe
85 90 95

Gly Gly Gly Thr Thr Leu Thr Val Leu Gly Gln Pro Lys Ala Ala Pro
100 105 110

Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys
115 120 125

Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr
130 135 140

Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr
145 150 155 160

Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr
165 170 175

Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys
180 185 190

Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr
195 200 205

Glu Cys Ser
210

<210> 448
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 448
Gly Glu Lys Ser Leu Gly Ser Arg Ala Val Gln
1 5 10

<210> 449
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 449
Asn Asn Gln Asp Arg Pro Ser
1 5

<210> 450
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 450

His Ile Trp Asp Ser Arg Val Pro Thr Lys Trp Val
1 5 10

<210> 451

<211> 462

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 451

Gln Met Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Ala Ser Ile Ser Asp Ser
20 25 30

Tyr Trp Ser Trp Ile Arg Arg Ser Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Val His Lys Ser Gly Asp Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val His Leu Ser Leu Asp Thr Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Ser Leu Ser Ser Val Thr Ala Ala Asp Ser Gly Lys Tyr Tyr Cys Ala
85 90 95

Arg Thr Leu His Gly Arg Arg Ile Tyr Gly Ile Val Ala Phe Asn Glu
100 105 110

Trp Phe Thr Tyr Phe Tyr Met Asp Val Trp Gly Lys Gly Thr Gln Val
115 120 125

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
130 135 140

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
145 150 155 160

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
165 170 175

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
180 185 190

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
195 200 205

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
210 215 220

Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser
340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
435 440 445

Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 452

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 452

Ser Asp Ile Ser Val Ala Pro Gly Glu Thr Ala Arg Ile Ser Cys Gly
1 5 10 15

Glu Lys Ser Leu Gly Ser Arg Ala Val Gln Trp Tyr Gln His Arg Ala
20 25 30

Gly Gln Ala Pro Ser Leu Ile Ile Tyr Asn Asn Gln Asp Arg Pro Ser
35 40 45

Gly Ile Pro Glu Arg Phe Ser Gly Ser Pro Asp Ser Pro Phe Gly Thr
50 55 60

Thr Ala Thr Leu Thr Ile Thr Ser Val Glu Ala Gly Asp Glu Ala Asp
65 70 75 80

Tyr Tyr Cys His Ile Trp Asp Ser Arg Val Pro Thr Lys Trp Val Phe
85 90 95

Gly Gly Gly Thr Thr Leu Thr Val Leu Gly Gln Pro Lys Ala Ala Pro
100 105 110

Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys
115 120 125

Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr
130 135 140

Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr
145 150 155 160

Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr
165 170 175

Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys
180 185 190

Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr
195 200 205

Glu Cys Ser
210

<210> 453

<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 453
Trp Asp Phe Asp
1

<210> 454
<211> 462
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 454
Gln Met Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Val Ser Gly Ala Ser Ile Ser Asp Ser
20 25 30

Tyr Trp Ser Trp Ile Arg Arg Ser Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Val His Lys Ser Gly Asp Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val His Leu Ser Leu Asp Thr Ser Lys Asn Gln Val Ser Leu
65 70 75 80

Ser Leu Thr Gly Val Thr Ala Ala Asp Ser Gly Lys Tyr Tyr Cys Ala
85 90 95

Arg Thr Leu His Gly Arg Arg Ile Tyr Gly Ile Val Ala Phe Asn Glu

100

105

110

Trp Phe Thr Tyr Phe Tyr Met Asp Val Trp Gly Thr Gly Thr Gln Val
 115 120 125

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
 130 135 140

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
 145 150 155 160

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
 165 170 175

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
 180 185 190

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
 195 200 205

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
 210 215 220

Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
 225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe
 245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser
340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
435 440 445

Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 455

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 455

Ser Asp Ile Ser Val Ala Pro Gly Glu Thr Ala Arg Ile Ser Cys Gly
1 5 10 15

Glu Lys Ser Leu Gly Ser Arg Ala Val Gln Trp Tyr Gln His Arg Ala
20 25 30

Gly Gln Ala Pro Ser Leu Ile Ile Tyr Asn Asn Gln Asp Arg Pro Ser
35 40 45

Gly Ile Pro Glu Arg Phe Ser Gly Ser Pro Asp Tyr Arg Pro Gly Thr
50 55 60

Thr Ala Thr Leu Thr Ile Thr Ser Val Glu Ala Gly Asp Glu Ala Asp
65 70 75 80

Tyr Tyr Cys His Ile Trp Asp Ser Arg Val Pro Thr Lys Trp Val Phe
85 90 95

Gly Gly Gly Thr Thr Leu Thr Val Leu Gly Gln Pro Lys Ala Ala Pro
100 105 110

Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys
115 120 125

Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr
130 135 140

Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr
145 150 155 160

Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr
165 170 175

Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys
180 185 190

Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr
195 200 205

Glu Cys Ser
210

<210> 456

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 456

Ser Asp Ile Ser Val Ala Pro Gly Glu Thr Ala Arg Ile Ser Cys Gly
1 5 10 15

Glu Lys Ser Leu Gly Ser Arg Ala Val Gln Trp Tyr Gln His Arg Ala
20 25 30

Gly Gln Ala Pro Ser Leu Ile Ile Tyr Asn Asn Gln Asp Arg Pro Ser
35 40 45

Gly Ile Pro Glu Arg Phe Ser Gly Ser Pro Asp Phe Arg Pro Gly Thr
50 55 60

Thr Ala Thr Leu Thr Ile Thr Ser Val Glu Ala Gly Asp Glu Ala Asp
65 70 75 80

Tyr Tyr Cys His Ile Trp Asp Ser Arg Val Pro Thr Lys Trp Val Phe
85 90 95

Gly Gly Gly Thr Thr Leu Thr Val Leu Gly Gln Pro Lys Ala Ala Pro
100 105 110

Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys
115 120 125

Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr
130 135 140

Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr
145 150 155 160

Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr
165 170 175

Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys
180 185 190

Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr
195 200 205

Glu Cys Ser
210

<210> 457

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 457

Gly Tyr Lys Ile Arg Asp His
1 5

<210> 458

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 458

Gly Tyr Lys Ile Arg Asp His Phe
1 5

<210> 459

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 459

Gly Tyr Lys Ile Arg Asp Tyr
1 5

<210> 460

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 460

Gly Tyr Asn Ile Ser Asp Tyr
1 5

<210> 461

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 461

Gly Tyr Asn Ile Arg Asp His
1 5

<210> 462
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 462
Gly Tyr Lys Ile Arg Asp Tyr Phe
1 5

<210> 463
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 463
Gly Tyr Asn Ile Ser Asp Tyr Phe
1 5

<210> 464
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 464
Gly Tyr Asn Ile Arg Asp His Phe
1 5

<210> 465
<211> 123
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 465

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Arg Asp His
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 466

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 466

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala

1	5	10	15
Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr	20	25	30
Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val	35	40	45
Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe	50	55	60
Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr	65	70	75
Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala	85	90	95
Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val	100	105	110
Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser	115	120	

<210> 467
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 467
 Gln Val His Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 468

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 468

Gln Val Gln Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 469

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 469

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 470

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 470

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Ser Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser

115

120

<210> 471

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 471

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp His
 20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
 35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
 50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
 65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
 85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
 100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
 115 120

<210> 472

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 472

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg Gln Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 473

<400> 473

000

<210> 474

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 474

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 475

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 475

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala

1	5	10	15
Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr	20	25	30
Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val	35	40	45
Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe	50	55	60
Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr	65	70	75
Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala	85	90	95
Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val	100	105	110
Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser	115	120	

<210> 476
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 476
 Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
 20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Phe Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 477

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 477

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Phe Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 478

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 478

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Arg Asp His
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Phe Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 479

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 479

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 480

<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 480
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 481
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 481
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 483

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 483

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 484

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 484

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 485

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 485

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 486

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 486

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 487

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 487

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala

65		70		75		80									
Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Phe	Gly	Pro	Gly	Thr	Arg	Leu
			85						90					95	

Asp Leu Lys

<210> 488
 <211> 99
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 488
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp	Arg	Ala	Thr	Ile	Thr	Cys	Gln	Ala	Asn	Gly	Tyr	Leu	Asn	Trp	Tyr
			20					25					30		

Gln	Gln	Arg	Arg	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr	Asp	Gly	Ser
		35					40					45			

Lys	Leu	Glu	Arg	Gly	Val	Pro	Ala	Arg	Phe	Ser	Gly	Ser	Arg	Trp	Gly
	50					55					60				

Gln	Glu	Tyr	Ile	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp	Val	Ala
65					70					75					80

Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Phe	Gly	Pro	Gly	Thr	Arg	Leu
				85					90					95	

Asp Leu Lys

<210> 489
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 489
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 490

<400> 490
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<210> 491
<211> 99
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 491

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 492

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 492

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr

20

25

30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 493

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 493

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 494

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 494

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 495
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 495
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 496
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 496

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 497

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 497

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 498

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 498

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu

85

90

95

Asp Leu Lys

<210> 499

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 499

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Arg	Val	Gly
1				5				10						15	

Asp	Thr	Ala	Thr	Ile	Thr	Cys	Gln	Ala	Asn	Gly	Tyr	Leu	Asn	Trp	Tyr
			20					25					30		

Gln	Gln	Arg	Arg	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr	Asp	Gly	Ser
		35					40					45			

Lys	Leu	Glu	Arg	Gly	Val	Pro	Ala	Arg	Phe	Ser	Gly	Arg	Arg	Trp	Gly
	50					55					60				

Gln	Asp	Tyr	Ile	Leu	Thr	Ile	Asn	Asn	Leu	Gln	Pro	Glu	Asp	Val	Ala
65				70						75					80

Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Ile	Val	Pro	Gly	Thr	Arg	Leu
				85					90					95	

Asp Leu Lys

<210> 500

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 500

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 501

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 501

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 502

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 502

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Val Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 503

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 503

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Leu Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 504
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 504
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Met Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 505
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 505

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ala Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 506

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 506

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser

35

40

45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr Ser Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

Asp Leu Lys

<210> 507

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 507

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr Phe Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 508

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 508

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Thr Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 509

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 509

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Arg Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 510

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 510

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Tyr Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 511

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 511

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Thr Arg Trp Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 512

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 512

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 513
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 513
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 514
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 514

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 515

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 515

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 516

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 516

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 517

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 517

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Arg Asp His
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 518

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 518

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys

210

215

220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 519

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 519

Gln Val His Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 520

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 520

Gln Val Gln Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val

195

200

205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 521

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 521

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 522

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 522

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Ser Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val

180

185

190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 523

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 523

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp His
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 524

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 524

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg Gln Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe

165

170

175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 525

<400> 525
000

<210> 526

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 526

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 527

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 527

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu

325

330

335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 528

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 528

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Phe Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 529

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 529

Gln Val Gln Leu Leu Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Asn Ile Arg Asp Tyr
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Phe Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala
85 90 95

Val Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu

305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
 325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
450

<210> 530

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 530

Gln Val His Leu Ser Gln Ser Gly Ala Ala Val Thr Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Tyr Lys Ile Arg Asp His
20 25 30

Phe Ile His Trp Trp Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Val
35 40 45

Gly Trp Ile Asn Pro Lys Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe
50 55 60

Gln Gly Arg Val Ser Leu Thr Arg His Ala Ser Phe Asp Phe Asp Thr
65 70 75 80

Phe Ser Phe Tyr Met Asp Leu Lys Ala Val Arg Ser Asp Asp Thr Ala
85 90 95

Ile Tyr Phe Cys Ala Arg Gln Arg Ser Asp Tyr Trp Asp Phe Asp Val
100 105 110

Trp Gly Ser Gly Thr Gln Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu
325 330 335

Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 531

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 531

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 532

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 532

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 533

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 533

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 534

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 534

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 535

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 535

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu

85

90

95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 536

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 536

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 537

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 537

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly

180

185

190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 538

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 538

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
 1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
 85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
 100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
 115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 539

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 539

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 540

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 540

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 541

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 541

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 542

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 542

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 543

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 543

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala

65		70		75		80									
Thr	Tyr	Phe	Cys	Gln	Val	Tyr	Glu	Phe	Phe	Gly	Pro	Gly	Thr	Arg	Leu
			85					90						95	
Asp	Leu	Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro
			100					105					110		
Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu
		115					120					125			
Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn
	130					135					140				
Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser
145					150					155					160
Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala
				165					170					175	
Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	Gly
			180					185					190		
Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	Cys		
		195					200					205			

<210> 544
 <211> 206
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 544
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 545

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 545

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala

165

170

175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 546

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 546

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
 1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
 85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
 100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 547

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 547

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 548

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 548

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Arg Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Ser Arg Trp Gly
50 55 60

Gln Glu Tyr His Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 549
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 549
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 550

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 550

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 551

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 551

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Phe Gly

50

55

60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 552

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 552

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Phe Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 553

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 553

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Val Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser

145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 554

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 554

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Leu Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
 85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 555

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 555

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Met Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 556

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 556

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ala Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 557

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 557

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Ser Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 558

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 558

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Phe Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 559

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 559

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser

35

40

45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Thr Arg Trp Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 560

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 560

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Arg Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 561

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 561

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Tyr Gly
50 55 60

Gln Glu Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn

130

135

140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 562

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 562

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
 20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Thr Arg Trp Gly
 50 55 60

Gln Asp Tyr Ile Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 563

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 563

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Arg Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 564

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 564

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ala Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 565

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 565

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Val Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 566

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 566

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Ile Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 567

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 567

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ala Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr

20

25

30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
 35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
 50 55 60

Gln Glu Tyr Thr Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
 65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Phe Gly Pro Gly Thr Arg Leu
 85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
 100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
 115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
 130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
 145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
 165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 195 200 205

<210> 568

<211> 206

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 568

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Thr Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
100 105 110

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
115 120 125

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
130 135 140

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
145 150 155 160

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
165 170 175

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
180 185 190

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
195 200 205

<210> 569

<211> 99

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 569

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Thr Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Gly Ser
35 40 45

Lys Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Gly Arg Arg Trp Gly
50 55 60

Gln Glu Tyr Asn Leu Thr Ile Asn Asn Leu Gln Pro Glu Asp Ile Ala
65 70 75 80

Thr Tyr Phe Cys Gln Val Tyr Glu Phe Val Val Pro Gly Thr Arg Leu
85 90 95

Asp Leu Lys

<210> 570

<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 570
Gln Ala Thr Gly Tyr Leu Asn
1 5

<210> 571
<211> 511
<212> PRT
<213> Human immunodeficiency virus 1

<400> 571
Met Arg Val Lys Glu Lys Tyr Gln His Leu Trp Arg Trp Gly Trp Arg
1 5 10 15

Trp Gly Thr Met Leu Leu Gly Met Leu Met Ile Cys Ser Ala Thr Glu
20 25 30

Lys Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Val Trp Lys Glu Ala
35 40 45

Thr Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu
50 55 60

Val His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Asn
65 70 75 80

Pro Gln Glu Val Val Leu Val Asn Val Thr Glu Asn Phe Asn Met Trp
85 90 95

Lys Asn Asp Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp
100 105 110

Asp Gln Ser Leu Lys Pro Cys Val Lys Leu Thr Pro Leu Cys Val Ser
115 120 125

Leu Lys Cys Thr Asp Leu Lys Asn Asp Thr Asn Thr Asn Ser Ser Ser
130 135 140

Gly Arg Met Ile Met Glu Lys Gly Glu Ile Lys Asn Cys Ser Phe Asn
145 150 155 160

Ile Ser Thr Ser Ile Arg Gly Lys Val Gln Lys Glu Tyr Ala Phe Phe
165 170 175

Tyr Lys Leu Asp Ile Ile Pro Ile Asp Asn Asp Thr Thr Ser Tyr Lys
180 185 190

Leu Thr Ser Cys Asn Thr Ser Val Ile Thr Gln Ala Cys Pro Lys Val
195 200 205

Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala Gly Phe Ala
210 215 220

Ile Leu Lys Cys Asn Asn Lys Thr Phe Asn Gly Thr Gly Pro Cys Thr
225 230 235 240

Asn Val Ser Thr Val Gln Cys Thr His Gly Ile Arg Pro Val Val Ser
245 250 255

Thr Gln Leu Leu Leu Asn Gly Ser Leu Ala Glu Glu Glu Val Val Ile
260 265 270

Arg Ser Val Asn Phe Thr Asp Asn Ala Lys Thr Ile Ile Val Gln Leu
275 280 285

Asn Thr Ser Val Glu Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg
290 295 300

Lys Arg Ile Arg Ile Gln Arg Gly Pro Gly Arg Ala Phe Val Thr Ile
305 310 315 320

Gly Lys Ile Gly Asn Met Arg Gln Ala His Cys Asn Ile Ser Arg Ala
325 330 335

Lys Trp Asn Asn Thr Leu Lys Gln Ile Ala Ser Lys Leu Arg Glu Gln
340 345 350

Phe Gly Asn Asn Lys Thr Ile Ile Phe Lys Gln Ser Ser Gly Gly Asp
355 360 365

Pro Glu Ile Val Thr His Ser Phe Asn Cys Gly Gly Glu Phe Phe Tyr
370 375 380

Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Phe Asn Ser Thr Trp
385 390 395 400

Ser Thr Glu Gly Ser Asn Asn Thr Glu Gly Ser Asp Thr Ile Thr Leu
405 410 415

Pro Cys Arg Ile Lys Gln Ile Ile Asn Met Trp Gln Lys Val Gly Lys
420 425 430

Ala Met Tyr Ala Pro Pro Ile Ser Gly Gln Ile Arg Cys Ser Ser Asn
435 440 445

Ile Thr Gly Leu Leu Leu Thr Arg Asp Gly Gly Asn Ser Asn Asn Glu
450 455 460

Ser Glu Ile Phe Arg Pro Gly Gly Gly Asp Met Arg Asp Asn Trp Arg
465 470 475 480

Ser Glu Leu Tyr Lys Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val
485 490 495

Ala Pro Thr Lys Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg
500 505 510

<210> 572

<211> 369

<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 572
caggtgcagt tgttgcagtc tggcgccgct gttacaaagc ctggcgcttc tgtagagtg 60
tcctgcgagg cctccggcta caacatcaga gactacttca tccactgggtg gcggcaggct 120
ccaggacagg gattgcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac 180
cctagacagt tccagggcag agtgtccctg accagacacg cctcttggga cttcgacacc 240
ttcagcttct acatggacct gaaggccctg agatccgacg ataccgccgt gtacttctgc 300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gctctggcac ccaagtgacc 360
gtgtcctct 369

<210> 573
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 573
caggtgcagc tgctgcagtc tggcgccgct gtgacaaaac caggcgcttc tgtgcgggtg 60
tcctgcgagg ccagcggcta caacatccgg gactacttca ttactgggtg gcgccaggcc 120
cctggacagg gactgcagtg ggtgggatgg atcaacccca agaccggcca gccaacaac 180
cccagacagt tccagggcag agtgtccctg accagacacg ccagctggga cttcgacacc 240
ttcagcttct acatggacct gaaggccctg cggagcgacg ataccgccgt gtacttctgc 300
gccagacaga gaagcgacta ctgggatttc gacgtgtggg gcagcggcac ccaagtgacc 360
gtgtcatct 369

<210> 574
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 574
caggtgcagt tggtgcagtc tggcgccgct gttacaaagc ctggcgcttc tgtagagtg 60
tcctgcgagg cctccggcta caacatcaga gactacttca tccactgggtg gcggcaggct 120
ccaggacagg gattgcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac 180
cctagacagt tccagggcag agtgtccctg accagacacg cctctttcga cttcgacacc 240
ttcagcttct acatggacct gaaggccctg agatccgacg ataccgccgt gtacttctgc 300
gccagacaga gaagcgacta ctgggacttc gatgtgtggg gctctggcac ccaagtgacc 360
gtgtcctct 369

<210> 575
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 575
caggtgcagc tgctgcagtc tggcgccgct gtgacaaaac caggcgcttc tgtgcgggtg 60
tcctgcgagg ccagcggcta caacatccgg gactacttca ttcactgggtg gcgccaggcc 120
cctggacagg gactgcagtg ggtgggatgg atcaaccca agaccggcca gcccaacaac 180
cccagacagt tccagggcag agtgtccctg accagacacg ccagcttcga cttcgacacc 240
ttcagcttct acatggacct gaaggccctg cggagcgacg ataccgccgt gtacttctgc 300
gccagacaga gaagcgacta ctgggatttc gacgtgtggg gcagcggcac ccaagtgacc 360
gtgtcatct 369

<210> 576
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 576
caggtccact tgtctcaatc tggcgccgct gtgacaaagc ctggcgcttc tgtcagagtg 60
tcttgcgagg cctctggcta caagatccgg gaccacttta tccactgggtg gcgacaggct 120
ccaggacagg gattgcagtg ggtcggatgg atcaacccta agaccggcca gcctaacaac 180
cctagacagt tccagggcag agtgtccctg accagacacg cctcttggga cttcgacacc 240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgctat ctacttttgc 300
gccagacaga gatccgacta ctgggatttc gatgtgtggg gctctggcac ccaagtgacc 360
gtgtcctct 369

<210> 577
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 577
caggtccacc tgtctcaatc tggcgccgct gttacaaaac caggcgcttc tgtagagtg 60
tcttgcgagg ccagcggcta caagatcagg gaccacttta ttcactgggtg gcgccaggct 120
ccaggacagg gacttcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac 180
cccagacagt tccagggcag agtgtctctg acaagacacg ccagctggga cttcgacacc 240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgcat ctatttttgc 300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gcagcggcac ccaagtgaca 360

gtctcttct 369

<210> 578

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 578

cagggtccact tgtctcaatc tggcgccgct gtgacaaagc ctggcgcttc tgtcagagtg 60

tcttgcgagg cctctggcta caagatccgg gaccacttta tccactgggtg gcgacaggct 120

ccaggacagg gattgcagtg ggtcggatgg atcaacccta agaccggcca gcctaacaac 180

cctagacagt tccagggcag agtgtccctg accagacacg cctctttcga cttcgacacc 240

ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgctat ctacttttgc 300

gccagacaga gatccgacta ctgggacttc gatgtgtggg gctctggcac ccaagtgacc 360

gtgtcctct 369

<210> 579

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 579

cagggtccacc tgtctcaatc tggcgccgct gttacaaaac caggcgcttc tgtagagtg 60

tcttgcgagg ccagcggcta caagatcagg gaccacttta ttactgggtg gcgccaggct 120

ccaggacagg gacttcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac 180

cccagacagt tccagggcag agtgtctctg acaagacacg ccagcttcga cttcgacacc 240

ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgcat ctatttttgc 300

gccagacaga gaagcgacta ctgggatttc gatgtgtggg gcagcggcac ccaagtgaca	360
gtctcttct	369

<210> 580
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 580	
cagggtccact tgtctcaatc tggcgccgct gtgacaaaagc ctggcgcttc tgtcagagtg	60
tcttgcgagg cctccggcta caacatccgg gactacttta tccactgggtg gcggcaggct	120
ccaggacagg gattgcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cctagacagt tccagggcag agtgtccctg accagacacg cctcttggga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgctat ctacttttgc	300
gccagacaga gatccgacta ctgggatttc gatgtgtggg gctctggcac ccaagtgacc	360
gtgtcctct	369

<210> 581
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 581	
cagggtccacc tgtctcaatc tggcgccgct gttacaaaac caggcgcttc tgtagagtg	60
tcttgcgagg ccagcggcta caacatccgg gactacttta ttactgggtg gcgccaggct	120
ccaggacagg gatttcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cccagacagt tccagggcag agtgtctctg acaagacacg ccagctggga cttcgacacc	240

ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgcat ctatTTTTgc	300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gcagcggcac ccaagtgaca	360
gtctcttct	369

<210> 582
 <211> 297
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 582	
gacatccaga tgacccagag cccttcctct ttatccgcta gcgtcggcga taccgtgacc	60
atcacatgcc aagctaacgg ctacctcaac tggtagcagc agcggagggg aaaggcccc	120
aagctgctga tctacgacgg ctccaagctg gagaggggag tgccttcccg gttcagcgga	180
aggaggtggg gacaagaata caatttaacc atcaacaatt tacagcccga ggacatcgct	240
acctacttct gccaaagtta cgagttcgtg gtgcccggca ctggtctgga tctgaag	297

<210> 583
 <211> 297
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 583	
gacatccaga tgacccagag ccctagcagc ctgagcgcca gcgtgggcga taccgtgacc	60
attacctgcc aggccaacgg ctacctgaac tggtagcagc agcggagagg caaggcccc	120
aagctgctga tctacgacgg cagcaagctg gaaagaggcg tgcccagcag attcagcggc	180
agaagatggg gccaggagta caacctgacc atcaacaacc tgcagcccga ggatatcgcc	240
acatactttt gccaggtgta cgagttcgtg gtgcccggca cacggctgga cctgaaa	297

<210> 584
<211> 297
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 584
gacatccaga tgacccagtc tccatcctct ctgtctgcct ctgtgggcga taccgctacc 60
atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct 120
aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgccctctcg gttctctggc 180
agaagatggg gccaaagagta caacctgacc atcaacaacc tgcagcctga ggatatcgcc 240
acatactttt gccaggtgta cgagttcgtg gtgcctggca caagactgga cctgaag 297

<210> 585
<211> 297
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 585
gatattcaga tgacacagag cccagtagc ctgagcgcca gcgtgggcga caccgcaacc 60
atcacctgtc aggccaacgg ctatctgaac tggatcaac agaggagggg caaggccccc 120
aagctcctga tatacgacgg cagcaagctg gagaggggcg ttcccagccg cttcagcggc 180
aggaggtggg gccaggagta caaccttaca atcaacaacc tgcagcccga ggacatcgcc 240
acctatttct gccaaagtta cgagttcgtg gtgcccggca ccaggctgga cctgaag 297

<210> 586
<211> 297
<212> DNA
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 586

gacatccaga tgacccagtc tccatcctct ctgtctgcct ctgtgggcga cagagctacc 60

atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct 120

aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgccctccag attctccggc 180

tctagatggg gccaaagta caacctgacc atctccagcc tccagcctga ggatatcgcc 240

acatactttt gccagggtga cgagttcttc ggccctggca ccagactgga cctgaag 297

<210> 587

<211> 297

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 587

gatattcaga tgacacagag cccagtagc ctgagcgcca gcgtgggcga cagagcaacc 60

atcacctgtc aggccaacgg ctatctgaac tggatcaac agagaagggg caaggccccc 120

aagctcctga tatacgacgg cagcaagctg gagagggggcg ttcccagccg cttcagcggc 180

tcaagggtggg gccaggagta caaccttaca atctcatccc tgcagcccga ggacatcgcc 240

acctatttct gccaaagtta cgagttcttc ggacccggca ccaggctgga cctgaag 297

<210> 588

<211> 297

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 588
gacatccaga tgacccagtc tccatcctct ctgtctgcca gagtgggcga caccgtgaca 60
atcacctgtc aggccaacgg ctacctgaac tggatatcagc agagaagagg caaggcccct 120
aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgcccgcctag attctccggc 180
agaagatggg gccaaagagta caacctgacc atcaacaacc tgcagcctga ggacgtggcc 240
acatactttt gccagggtga cgagttcatc gtgcccggca ccagactgga cctgaag 297

<210> 589
<211> 297
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 589
gatattcaga tgacacagag cccagtagc ctgagcgccc gcgtgggcga caccgtgacc 60
atcacctgtc aggccaacgg ctatctgaac tggatatcaac agaggagggg caaggccccc 120
aagctcctga tatacgacgg cagcaagctg gagaggggcg ttcccgcacg cttcagcggc 180
aggaggtggg gccaggagta caaccttaca atcaacaacc tgcagcccga ggacgtcgcc 240
acctatttct gccaaagtta cgagttcatc gtgcccggca ccaggctgga cctgaag 297

<210> 590
<211> 297
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 590
gacatccaga tgacccagtc tccatcctct ctgtctgcct ctgtgggcga taccgctacc 60
atcacctgtc aggccaacgg ctacctgaac tggatatcagc agagaagagg caaggcccct 120
aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgccctctcg gttctctggc 180

agaagatggg gccaaagagta caccctgacc atcaacaacc tgcagcctga ggatatcgcc	240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaag	297

<210> 591
 <211> 297
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 591	
gacatccaga tgacacagag ccctagcagc ctgtctgcc a gctgggaga taccgccaca	60
attacctgtc aggccaacgg ctacctgaac tggatcagc agcggagagg caaggcccct	120
aagctgctga tctacgacgg cagcaagctg gaaagaggcg tgcccagcag attcagcggc	180
agaagatggg gccaaagagta caccctgacc atcaacaacc tgcagcctga ggatattgcc	240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaag	297

<210> 592
 <211> 297
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 592	
gacatccaga tgacccagtc tccatcctct ctgtctgcct ctgtgggcga cagagctacc	60
atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct	120
aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgccctccag attctccggc	180
tctagatggg gccaaagagta caccctgacc atctctagcc tgcagcctga ggatatcgcc	240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaag	297

<210> 593
<211> 297
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 593
gacatccaga tgacacagag ccctagcagc ctgtctgcct ctgtgggcga tagagccaca 60
atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct 120
aagctgctga tctacgacgg cagcaaaactg gaaagaggcg tgccaagcag attcagcggc 180
tctagatggg gccaaagagta caccctgacc atctctagcc tgcagcctga ggatatcgcc 240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaaa 297

<210> 594
<211> 297
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 594
gacatccaga tgacccagtc tccatcctct ctgtctgccg gagtgggcga taccgctacc 60
atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct 120
aagctgctga tctacgacgg ctccaaaactg gaaagaggcg tgcccgtag attctccggc 180
agaagatggg gccaaagagta caccctgacc atcaacaacc tgcagcctga ggacgtggcc 240
acatactttt gccaggtgta cgagttcatc gtgcccggca ccagactgga cctgaag 297

<210> 595
<211> 297
<212> DNA
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 595

gatattcaga tgacacagag ccccagtagc ctgagcgccc gcgtgggcga caccgcgacc	60
atcacctgtc aggccaacgg ctatctgaac tggatatcaac agaggagggg caaggccccc	120
aagctcctga tatacgacgg cagcaagctg gagagggggcgt ttcccgcacg cttcagcggc	180
aggaggtggg gccaggagta cacccttaca atcaacaacc tgcagcccga ggacgtcgcc	240
acctatttct gccaaagtta cgagttcatc gtgcccggca ccaggctgga cctgaag	297

<210> 596

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 596

cagggtgcagt tggtgcagtc tggcgccgct gttacaaagc ctggcgcttc tgtagagtg	60
tcctgcgagg cctccggcta caacatcaga gactacttca tccactgggtg gcggcaggct	120
ccaggacagg gattgcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cctagacagt tccagggcag agtgtccctg accagacacg cctcttggga cttcgacacc	240
ttcagcttct acatggacct gaaggccctg agatccgacg ataccgccgt gtacttctgc	300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gctctggcac ccaagtgacc	360
gtgtcctctg cttctaccaa gggaccctct gtgttccctc tggctccttc cagcaagtct	420
acctctgggtg gaaccgctgc tctgggctgc ctgggtcaagg attactttcc tgagcctgtg	480
acagtgtcct ggaactctgg tgctctgacc tccggcgtgc acacatttcc agctgtgctg	540
cagtcctccg gcctgtactc tctgtcctct gtcgtgaccg tgccttctag ctctctgggc	600
acccagacct acatctgcaa cgtgaaccac aagccttcca acaccaaggt ggacaagaag	660
gtggaacca agtcctgcga caagaccac acctgtcctc catgtcctgc tccagaactg	720

ctggctggcc ccgatgtctt tctgttccct ccaaagccta aggacaccct gatgatctct	780
cggacccctg aagtgacctg cgtggtggtg gatgtgtctc acgaggatcc cgaagtgaag	840
ttcaattggt acgtggacgg cgtggaagtg cacaacgcca agaccaagcc tagagaggaa	900
cagtacaact ccacctacag agtgggtgtcc gtgctgaccg tgctgcacca ggattggctg	960
aacggcaaag agtacaagtg caagggtgtcc aacaaggccc tgcctctgcc tgaggaaaag	1020
accatctcta aggctaaggg ccagcctcgc gagcctcagg ttacacact gcctccatct	1080
cgggaagaga tgaccaagaa ccagggtgtca ctgacctgcc tcgtgaaggg cttctaccct	1140
tccgatatcg ccgtggaatg ggagtccaat ggccagcctg agaacaacta caagacaacc	1200
cctcctgtgc tggactccga cggctcattc ttcctgtact ccaagctgac agtggacaag	1260
tctcgggtggc agcagggcaa cgtgttctct tgtagtgtgc tgcacgaggc cctgcactcc	1320
cactataccc agaagtctct gtctctgagc cccggcaaa	1359

<210> 597

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 597

cagggtgcagc tgctgcagtc tggcgccgct gtgacaaaac caggcgcttc tgtgcgggtg	60
tcctgcgagg ccagcggcta caacatccgg gactacttca ttactgggtg gcgccaggcc	120
cctggacagg gactgcagtg ggtgggatgg atcaacccca agaccggcca gccaacaac	180
cccagacagt tccagggcag agtgtccctg accagacacg ccagctggga cttcgacacc	240
ttcagcttct acatggacct gaaggccctg cggagcgacg ataccgccgt gtacttctgc	300
gccagacaga gaagcgacta ctgggatttc gacgtgtggg gcagcggcac ccaagtgacc	360
gtgtcatctg ctagcaccaa gggccccagc gtgttccctc tggcccctag cagcaagagc	420
acatctggcg gaacagccgc cctgggctgc ctcgtgaagg actactttcc cgagcccgtg	480

accgtgtcct ggaactctgg cgctctgaca agcggcgtgc acacctttcc agccgtgctg	540
cagagcagcg gcctgtactc tctgagcagc gtcgtgacag tgcccagcag ctctctgggc	600
acccagacct acatctgcaa cgtgaaccac aagcccagca acaccaaggt ggacaagaag	660
gtggaaccca agagctgcga caagaccac acctgtcccc cttgtcctgc ccccgaaactg	720
ctggctggcc ctgacgtgtt cctgttcccc ccaaagccca aggacaccct gatgatcagc	780
cggacccccg aagtgacctg cgtgggtgggtg gatgtgtccc acgaggaccc tgaagtgaag	840
ttcaattggt acgtggacgg cgtggaagtg cacaacgcca agaccaagcc tagagaggaa	900
cagtacaaca gcacctaccg ggtggtgtcc gtgctgacag tgctgcacca ggactggctg	960
aacggcaaag agtacaagtg caaggtgtcc aacaaggccc tgcccctgcc cgaggaaaag	1020
accatctcta aggccaaagg acagccccgc gagccccagg tgtacacact gcctccaagc	1080
cgggaagaga tgaccaagaa ccaggtgtcc ctgacctgtc tcgtgaaagg cttctacccc	1140
agcgacattg ccgtggaatg ggagagcaac ggccagcccc agaacaacta caagaccacc	1200
ccccctgtgc tggacagcga cggctcattc ttcctgtaca gcaagctgac cgtggacaag	1260
tcccggtggc agcagggcaa cgtgttcagc tgtagcgtgt tgcatgaggc tctgcacagc	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 598

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 598

caggtgcagt tggtgcagtc tggcgccgct gttacaaagc ctggcgcttc tgtagagt	60
tcctgcgagg cctccggcta caacatcaga gactacttca tccactgggtg gcggcaggct	120
ccaggacagg gattgcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cctagacagt tccagggcag agtgtccctg accagacacg cctctttcga cttcgacacc	240

ttcagcttct acatggacct gaaggccctg agatccgacg ataccgccgt gtacttctgc	300
gccagacaga gaagcgacta ctgggacttc gatgtgtggg gctctggcac ccaagtgacc	360
gtgtcctctg cttctaccaa gggaccctct gtgttccctc tggctccttc cagcaagtct	420
acctctgggtg gaaccgctgc tctgggctgc ctgggtcaagg attactttcc tgagcctgtg	480
acagtgtcct ggaactctgg tgctctgacc tccggcgtgc acacatttcc agctgtgctg	540
cagtcctccg gcctgtactc tctgtcctct gtcgtgaccg tgccttctag ctctctgggc	600
accagacct acatctgcaa cgtgaaccac aagccttcca acaccaaggt ggacaagaag	660
gtggaacca agtcctgcga caagaccac acctgtcctc catgtcctgc tccagaactg	720
ctggctggcc ccgatgtctt tctgttccct ccaaagccta aggacaccct gatgatctct	780
cggacccttg aagtgacctg cgtgggtgggtg gatgtgtctc acgaggatcc cgaagtgaag	840
ttcaattggt acgtggacgg cgtggaagtg cacaacgcca agaccaagcc tagagaggaa	900
cagtacaact ccacctacag agtgggtgtcc gtgctgaccg tgctgcacca ggattggctg	960
aacggcaaag agtacaagtg caagggtgtcc aacaaggccc tgcctctgcc tgaggaaaag	1020
accatctcta aggctaaggg ccagcctcgc gagcctcagg ttacacact gcctccatct	1080
cgggaagaga tgaccaagaa ccagggtgtca ctgacctgcc tcgtgaaggg cttctaccct	1140
tccgatatcg ccgtggaatg ggagtccaat ggccagcctg agaacaacta caagacaacc	1200
cctcctgtgc tggactccga cggctcattc ttcctgtact ccaagctgac agtggacaag	1260
tctcgggtggc agcagggcaa cgtgttctct tgtagtgtgc tgcacgaggc cctgcactcc	1320
cactataccc agaagtctct gtctctgagc cccggcaaa	1359

<210> 599

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 599

caggtgcagc tgctgcagtc tggcgccgct gtgacaaaac caggcgcttc tgtgcgggtg	60
tcctgcgagg ccagcggcta caacatccgg gactacttca ttacttggtg gcgccaggcc	120
cctggacagg gactgcagtg ggtgggatgg atcaacccca agaccggcca gcccacaac	180
cccagacagt tccagggcag agtgtccctg accagacacg ccagcttcga cttcgacacc	240
ttcagcttct acatggacct gaaggccctg cggagcgacg ataccgccgt gtacttctgc	300
gccagacaga gaagcgacta ctgggatttc gacgtgtggg gcagcggcac ccaagtgacc	360
gtgtcatctg ctagcaccaa gggccccagc gtgttcctc tggcccctag cagcaagagc	420
acatctggcg gaacagccgc cctgggctgc ctcgtgaagg actactttcc cgagcccgtg	480
accgtgtcct ggaactctgg cgctctgaca agcggcgtgc acacctttcc agccgtgctg	540
cagagcagcg gcctgtactc tctgagcagc gtcgtgacag tgcccagcag ctctctgggc	600
accagacct acatctgcaa cgtgaaccac aagcccagca acaccaaggt ggacaagaag	660
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ctggctggcc ctgacgtgtt cctgttcccc ccaaagccca aggacaccct gatgatcagc	780
cggacccccg aagtgacctg cgtgggtggtg gatgtgtccc acgaggaccc tgaagtgaag	840
ttcaattggt acgtggacgg cgtggaagtg cacaacgcca agaccaagcc tagagaggaa	900
cagtacaaca gcacctaccg ggtggtgtcc gtgctgacag tgctgcacca ggactggctg	960
aacggcaaag agtacaagtg caaggtgtcc aacaaggccc tgcccctgcc cgaggaaaag	1020
accatctcta aggccaaggg acagccccgc gagccccagg tgtacacact gcctccaagc	1080
cgggaagaga tgaccaagaa ccagggtgtcc ctgacctgtc tcgtgaaagg cttctacccc	1140
agcgacattg ccgtggaatg ggagagcaac ggccagcccc agaacaacta caagaccacc	1200
ccccctgtgc tggacagcga cggctcattc ttcctgtaca gcaagctgac cgtggacaag	1260
tcccgggtggc agcagggcaa cgtgttcagc tgtagcgtgt tgcattgaggc tctgcacagc	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 600

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 600

cagggtccact tgtctcaatc tggcgccgct gtgacaaaagc ctggcgcttc tgtcagagtg	60
tcttgcgagg cctctggcta caagatccgg gaccacttta tccactgggtg gcgacaggct	120
ccaggacagg gattgcagtg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cctagacagt tccagggcag agtgtccctg accagacacg cctcttggga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgctat ctacttttgc	300
gccagacaga gatccgacta ctgggatttc gatgtgtggg gctctggcac ccaagtgacc	360
gtgtcctctg cttctaccaa gggaccctct gtgttccctc tggctccttc cagcaagtct	420
acctctgggtg gaaccgctgc tctgggctgc ctgggtcaagg attactttcc tgagcctgtg	480
acagtgtcct ggaactctgg tgctctgacc tccggcgctg acacatttcc agctgtgctg	540
cagtcctccg gcctgtactc tctgtcctct gtcgtgaccg tgccttctag ctctctgggc	600
accagacct acatctgcaa cgtgaaccac aagccttcca acaccaaggt ggacaagaag	660
gtggaaccca agtcctgcga caagaccac acctgtcctc catgtcctgc tccagaactg	720
ctggctggcc ccgatgtctt tctgttccct ccaaagccta aggacaccct gatgatctct	780
cggacccctg aagtgacctg cgtgggtggg gatgtgtctc acgaggatcc cgaagtgaag	840
ttcaattggg acgtggacgg cgtggaagtg cacaacgcca agaccaagcc tagagaggaa	900
cagtacaact ccacctacag agtgggtgtcc gtgctgaccg tgctgcacca ggattggctg	960
aacggcaaag agtacaagtg caagggtgtcc aacaaggccc tgcctctgcc tgaggaaaag	1020
accatctcta aggctaaggg ccagcctcgc gagcctcagg ttacacact gcctccatct	1080
cgggaagaga tgaccaagaa ccagggtgtca ctgacctgcc tcgtgaaggg cttctaccct	1140
tccgatatcg ccgtggaatg ggagtccaat ggccagcctg agaacaacta caagacaacc	1200
cctcctgtgc tggactccga cggctcattc ttcctgtact ccaagctgac agtggacaag	1260

tctcgggtggc agcagggcaa cgtgttctct tgtagtgtgc tgcacgaggc cctgcactcc	1320
cactataccc agaagtcctt gtctctgtcc cctggcaaaa	1359

<210> 601
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 601	
cagggtccacc tgtctcaatc tggcgccgct gttacaaaac caggcgccctc tgtagagtg	60
tcttgcgagg ccagcggcta caagatcagg gaccacttta ttcactgggtg gcgccaggct	120
ccaggacagg gacttcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cccagacagt tccagggcag agtgtctctg acaagacacg ccagctggga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgccat ctatTTTTgc	300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gcagcggcac ccaagtgaca	360
gtctcttctg ctagcaccaa gggccccagc gtgttccctc tggcccctag cagcaagagc	420
acatctggcg gaacagccgc cctgggctgc ctcgtgaagg actactttcc cgagcccgtg	480
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cagagcagcg gcctgtactc tctgagcagc gtcgtgacag tgcccagcag ctctctgggc	600
accagacct acatctgcaa cgtgaaccac aagcccagca acaccaaggt ggacaagaag	660
gtggaaccca agagctgcga caagaccac acctgtcccc cttgtcctgc ccccgaactg	720
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cagtacaaca gcacctaccg ggtgggtgtcc gtgctgacag tgctgcacca ggactggctg	960
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tcccgggtggc agcagggcaa cgtgttcagc tgtagcgtgt tgcatgaggc tctgcacagc	1320
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<210> 602

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 602

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cctagacagt tccagggcag agtgtccctg accagacacg cctctttcga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgctat ctacttttgc	300
gccagacaga gatccgacta ctgggacttc gatgtgtggg gctctggcac ccaagtgacc	360
gtgtcctctg cttctaccaa gggaccctct gtgttccctc tggctccttc cagcaagtct	420
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acagtgtcct ggaactctgg tgctctgacc tccggcgctgc acacatttcc agctgtgctg	540
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gtggaaccca agtcctgcga caagaccac acctgtcctc catgtcctgc tccagaactg	720
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cggacccctg aagtgacctg cgtggtggtg gatgtgtctc acgaggatcc cgaagtgaag	840
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<210> 603

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 603

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ccaggacagg gacttcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cccagacagt tccagggcag agtgtctctg acaagacacg ccagcttcga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgccat ctatTTTTgc	300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gcagcggcac ccaagtga	360
gtctcttctg ctagcaccaa gggccccagc gtgttccctc tggcccctag cagcaagagc	420
acatctggcg gaacagccgc cctgggctgc ctcgtgaagg actactttcc cgagcccg	480
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cagagcagcg gcctgtactc tctgagcagc gtcgtgacag tgcccagcag ctctctgggc	600
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cgggaagaga tgaccaagaa ccagggtgtcc ctgacctgtc tcgtgaaagg cttctacccc	1140
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tcccgggtggc agcagggcaa cgtgttcagc tgtagcgtgt tgcatgaggc tctgcacagc	1320
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<210> 604

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 604

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ccaggacagg gattgcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cctagacagt tccagggcag agtgtccctg accagacacg cctcttggga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgctat ctacttttgc	300

gccagacaga gatccgacta ctgggatttc gatgtgtggg gctctggcac ccaagtgacc	360
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acagtgtcct ggaactctgg tgctctgacc tccggcgtgc acacatttcc agctgtgctg	540
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cctcctgtgc tggactccga cggctcattc ttcctgtact ccaagctgac agtggacaag	1260
tctcgggtggc agcagggcaa cgtgttctct tgtagtgtgc tgcacgaggc cctgcactcc	1320
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<210> 605

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 605

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tcttgcgagg ccagcggcta caacatccgg gactacttta ttcactggtg gcgccaggct	120
ccaggacagg gacttcaatg ggtcggatgg atcaacccta agaccggcca gcctaacaac	180
cccagacagt tccagggcag agtgtctctg acaagacacg ccagctggga cttcgacacc	240
ttcagcttct acatggacct gaaggccgtg cggagcgacg acaccgcat ctatttttgc	300
gccagacaga gaagcgacta ctgggatttc gatgtgtggg gcagcggcac ccaagtgaca	360
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ctggctggcc ctgacgtgtt cctgttcccc ccaaagccca aggacaccct gatgatcagc	780
cggacccccg aagtgacctg cgtggtggtg gatgtgtccc acgaggaccc tgaagtgaag	840
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tcccgggtggc agcagggcaa cgtgttcagc tgtagcgtgt tgcattgaggc tctgcacagc	1320
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<210> 606

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 606

gacatccaga tgacccagag cccttcctct ttatccgcta gcgtcggcga taccgtgacc	60
atcacatgcc aagctaacgg ctacctcaac tggtagcagc agcggagggg aaaggccccc	120
aagctgctga tctacgacgg ctccaagctg gagaggggag tgccttcccg gttcagcgga	180
aggaggtggg gacaagaata caatttaacc atcaacaatt tacagcccga ggacatcgct	240
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accgtggccg cccctccgt gttcatcttt ccccttccg acgagcagct gaagtccggc	360
accgcctccg tgggtgtgtt actgaacaac ttctaccctc gtgaggccaa ggtgcagtgg	420
aaggtggaca acgctttaca gtccggcaac tccaagaat ccgtgaccga gcaagatagc	480
aaggactcca cctactccct ctccagcact ttaactttat ccaaggccga ctacgagaag	540
cacaaggtgt acgcttgtga ggtgaccac caaggtctgt cctccccgt gacaaagtcc	600
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<210> 607

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 607

gacatccaga tgacccagag ccctagcagc ctgagcgcca gcgtgggcga taccgtgacc	60
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aagctgctga tctacgacgg cagcaagctg gaaagaggcg tgcccagcag attcagcggc	180
agaagatggg gccaggagta caacctgacc atcaacaacc tgcagcccga ggatatcgcc	240
acatactttt gccaggtgta cgagttcgtg gtgcccggca cacggctgga cctgaaacgt	300

acggtggctg caccatctgt cttcatcttc ccgccatctg atgagcagtt gaaatctgga	360
actgcctctg ttgtgtgcct gctgaataac ttctatccca gagaggccaa agtacagtgg	420
aaggtggata acgcccctcca atcgggtaac tcccaggaga gtgtcacaga gcaggacagc	480
aaggacagca cctacagcct cagcagcacc ctgacgctga gcaaagcaga ctacgagaaa	540
cacaaagtct acgcctgcga agtcacccat cagggcctga gctcgcccgt cacaaagagc	600
ttcaacaggg gagagtgt	618

<210> 608

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 608

gacatccaga tgacccagtc tccatcctct ctgtctgcct ctgtgggcga taccgctacc	60
atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct	120
aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgccctctcg gttctctggc	180
agaagatggg gccaagagta caacctgacc atcaacaacc tgcagcctga ggatatcgcc	240
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aaggactcta cctacagcct gtcctccaca ctgaccctgt ctaaggccga ctacgagaag	540
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ttcaacagag gcgagtgt	618

<210> 609

<211> 618

<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 609
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aggaggtggg gccaggagta caaccttaca atcaacaacc tgcagcccga ggacatcgcc 240
acctatttct gccaaagtta cgagttcgtg gtgcccggca ccaggctgga cctgaagcgg 300
accgtggccg cccccagcgt gttcatcttc cctcccagcg acgagcagct gaagtctggc 360
accgccagcg tgggtgtgcct gctgaacaac ttctaccccc gcgaggccaa ggtgcagtgg 420
aaggtggaca acgccctgca gagcggcaac agccaggaga gcgtgaccga gcaggactcc 480
aaggacagca cctacagcct gagcagcacc ctgaccctga gcaaggccga ctacgagaag 540
cacaaggtgt acgcctgcga ggtgaccac cagggactgt ctagccccgt gaccaagagc 600
ttcaaccggg gcgagtgc 618

<210> 610
<211> 618
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 610
gacatccaga tgaccagtc tccatcctct ctgtctgcct ctgtgggcga cagagctacc 60
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aagctgtga tctacgacgg ctccaaactg gaaagaggcg tgccctccag attctccggc 180
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acatactttt gccagggtgta cgagttcttc ggccctggca ccagactgga cctgaagaga	300
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aaggactcta cctacagcct gtcctccaca ctgaccctgt ctaaggccga ctacgagaag	540
cacaaggtgt acgcctgcga agtgacccat cagggactgt ctagccccgt gaccaagtcc	600
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<210> 611

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 611

gatattcaga tgacacagag cccagtagc ctgagcgcca gcgtgggcga cagagcaacc	60
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aagctcctga tatacgacgg cagcaagctg gagaggggcg ttcccagccg cttcagcggc	180
tcaaggtggg gccaggagta caaccttaca atctcatccc tgcagcccga ggacatcgcc	240
acctatttct gccaaagtta cgagttcttc ggacccggca ccaggctgga cctgaagcgg	300
accgtggccg cccccagcgt gttcatcttc cctcccagcg acgagcagct gaagtctggc	360
accgccagcg tgggtgtgcct gctgaacaac ttctaccccc gcgaggccaa ggtgcagtgg	420
aaggtggaca acgccctgca gagcggcaac agccaggaga gcgtgaccga gcaggactcc	480
aaggacagca cctacagcct gagcagcacc ctgaccctga gcaaggccga ctacgagaag	540
cacaaggtgt acgcctgcga ggtgaccac cagggactgt ctagccccgt gaccaagagc	600
ttcaaccggg gcgagtgc	618

<210> 612
<211> 618
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 612
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aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgcccgctag attctccggc 180
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aaggtggaca atgccctgca gtccggcaac tcccaagagt ctgtgaccga gcaggactcc 480
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cacaaggtgt acgcctgcga agtgacccat cagggactgt ctagccccgt gaccaagtcc 600
ttcaacagag gcgagtgt 618

<210> 613
<211> 618
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 613
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aagctcctga tatacgacgg cagcaagctg gagaggggcg ttcccgcacg cttcagcggc 180

aggaggtggg gccaggagta caaccttaca atcaacaacc tgcagcccga ggacgtcgcc	240
acctatttct gccaaagtta cgagttcatc gtgcccggca ccaggctgga cctgaagcgg	300
accgtggccg cccccagcgt gttcatcttc cctcccagcg acgagcagct gaagtctggc	360
accgccagcg tgggtgtgcct gctgaacaac ttctaccccc gcgaggccaa ggtgcagtgg	420
aaggtggaca acgccctgca gagcggcaac agccaggaga gcgtgaccga gcaggactcc	480
aaggacagca cctacagcct gagcagcacc ctgaccctga gcaaggccga ctacgagaag	540
cacaaggtgt acgcctgcga ggtgaccac cagggactgt ctagccccgt gaccaagagc	600
ttcaaccggg gcgagtgc	618

<210> 614

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 614

gacatccaga tgaccagtc tccatcctct ctgtctgcct ctgtgggcga taccgctacc	60
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aagctgtcta tctacgacgg ctccaaactg gaaagaggcg tgccctctcg gttctctggc	180
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aaggactcta cctacagcct gtcctccaca ctgaccctgt ctaaggccga ctacgagaag	540
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ttcaacagag gcgagtgt	618

<210> 615
<211> 618
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 615
gacatccaga tgacacagag ccctagcagc ctgtctgccg gcgtgggaga taccgccaca 60
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aagctgctga tctacgacgg cagcaagctg gaaagaggcg tgcccagcag attcagcggc 180
agaagatggg gccaaagagta caccctgacc atcaacaacc tgcagcctga ggatattgcc 240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaagaga 300
acagtggccg ctcctagcgt gttcatcttc ccaccttccg acgagcagct gaagtctggc 360
acagcctctg tcgtgtgcct gctgaacaac ttctacccca gagaagccaa ggtgcagtgg 420
aaggtggaca acgcccctgca gagcggcaat agccaagaga gcgtgaccga gcaggacagc 480
aaggactcta cctactctct gagcagcacc ctgacactga gcaaggccga ctacgagaag 540
cacaaagtgt acgcctgcga agtgacccac cagggccttt ctagccctgt gaccaagagc 600
ttcaaccggg gcgagtgt 618

<210> 616
<211> 618
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 616
gacatccaga tgacccagtc tccatcctct ctgtctgcct ctgtgggcga cagagctacc 60
atcacctgtc aggccaacgg ctacctgaac tggatcagc agagaagagg caaggcccct 120

aagctgctga tctacgacgg ctccaaactg gaaagaggcg tgccctccag attctccggc	180
tctagatggg gccaaagagta caccctgacc atctctagcc tgcagcctga ggatatcgcc	240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaagaga	300
acagtggccg ctccttccgt gttcatcttc ccaccatctg acgagcagct gaagtctggc	360
accgcttctg tcgtgtgcct gctgaacaac ttctaccctc gggaagccaa ggtgcagtgg	420
aaggtggaca atgccctgca gtccggcaac tcccaagagt ctgtgaccga gcaggactcc	480
aaggactcta cctacagcct gtcctccaca ctgaccctgt ctaaggccga ctacgagaag	540
cacaaggtgt acgcctgcga agtgacccat cagggactgt ctagccccgt gaccaagtcc	600
ttcaacagag gcgagtgt	618

<210> 617

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 617

gacatccaga tgacacagag ccctagcagc ctgtctgcct ctgtgggcga tagagccaca	60
atcacctgtc aggccaacgg ctacctgaac tggatatcagc agagaagagg caaggcccct	120
aagctgctga tctacgacgg cagcaaactg gaaagaggcg tgccaagcag attcagcggc	180
tctagatggg gccaaagagta caccctgacc atctctagcc tgcagcctga ggatatcgcc	240
acatactttt gccaggtgta cgagttcttc ggccctggca ccagactgga cctgaaacgt	300
acggtggctg caccatctgt cttcatcttc ccgccatctg atgagcagtt gaaatctgga	360
actgcctctg ttgtgtgcct gctgaataac ttctatccca gagaggccaa agtacagtgg	420
aaggtggata acgcccctcca atcgggtaac tcccaggaga gtgtcacaga gcaggacagc	480
aaggacagca cctacagcct cagcagcacc ctgacgctga gcaaagcaga ctacgagaaa	540
cacaaagtct acgcctgcga agtcacccat cagggcctga gctcgcccgt cacaaagagc	600

ttcaacaggg gagagtgt 618

<210> 618

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 618

gacatccaga tgacccagtc tccatcctct ctgtctgcc	gagtgggcga taccgctacc	60
atcacctgtc aggccaacgg ctacctgaac tggatcagc	agagaagagg caaggcccct	120
aagctgctga tctacgacgg ctccaaactg gaaagaggcg	tgcccgctag attctccggc	180
agaagatggg gccaaagagta caccctgacc atcaacaacc	tgagcctga ggacgtggcc	240
acatactttt gccagggtga cgagttcatc gtgcccggca	ccagactgga cctgaagaga	300
acagttgccg ctcttccgt gttcatcttc ccaccttccg	acgagcagct gaagtctggc	360
acagcttctg tcgtgtgcct gctgaacaac ttctaccctc	gggaagccaa ggtgcagtgg	420
aagggtggaca atgccctgca gtccggcaac tccaagagt	ctgtgaccga gcaggactcc	480
aaggactcta cctacagcct gtcctccaca ctgaccctgt	ctaaggccga ctacgagaag	540
cacaaggtgt acgcctgcga agtgacccat cagggactgt	ctagccccgt gaccaagtcc	600
ttcaacagag gcgagtgt		618

<210> 619

<211> 618

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 619

gatattcaga tgacacagag cccagtagc ctgagcgccc	gcgtgggcga caccgcgacc	60
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atcacctgtc aggccaacgg ctatctgaac tggatatcaac agaggagggg caaggccccc 120
aagctcctga tatacgacgg cagcaagctg gagaggggcg ttcccgcacg cttcagcggc 180
aggaggtggg gccaggagta cacccttaca atcaacaacc tgcagcccga ggacgtcgcc 240
acctatttct gccaaagtta cgagttcatc gtgcccggca ccaggctgga cctgaagcgg 300
accgtggccg cccccagcgt gttcatcttc cctcccagcg acgagcagct gaagtctggc 360
accgccagcg tgggtgtgcct gctgaacaac ttctaccccc gcgaggccaa ggtgcagtgg 420
aaggtggaca acgccctgca gagcggcaac agccaggaga gcgtgaccga gcaggactcc 480
aaggacagca cctacagcct gagcagcacc ctgaccctga gcaaggccga ctacgagaag 540
cacaaggtgt acgcctgcga ggtgaccac cagggactgt ctagccccgt gaccaagagc 600
ttcaaccggg gcgagtgc 618

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<210> 620

<211> 17

<212> PRT

<213> Unknown

<220>

<221> source

<223> /note="Description of Unknown:
signal peptide"

<400> 620

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Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala Tyr
1           5           10          15

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Ser

<210> 621

<211> 24

<212> PRT

<213> Unknown

<220>

<221> source

<223> /note="Description of Unknown:
signal peptide"

<400> 621

Met Asp Pro Lys Gly Ser Leu Ser Trp Arg Ile Leu Leu Phe Leu Ser
1 5 10 15

Leu Ala Phe Glu Leu Ser Tyr Gly
20

<210> 622

<211> 20

<212> PRT

<213> Unknown

<220>

<221> source

<223> /note="Description of Unknown:
signal peptide"

<400> 622

Met Ser Val Pro Thr Gln Val Leu Gly Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

Asp Ala Arg Cys
20

<210> 623

<211> 20

<212> PRT

<213> Unknown

<220>

<221> source

<223> /note="Description of Unknown:
signal peptide"

<400> 623

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly
20

<210> 624

<211> 18

<212> PRT
<213> Unknown

<220>
<221> source
<223> /note="Description of Unknown:
signal peptide"

<400> 624
Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser

<210> 625
<211> 20
<212> PRT
<213> Unknown

<220>
<221> source
<223> /note="Description of Unknown:
signal peptide"

<400> 625
Met Arg Cys Leu Ala Glu Phe Leu Gly Leu Leu Val Leu Trp Ile Pro
1 5 10 15

Gly Ala Ile Gly
20

<210> 626
<211> 24
<212> PRT
<213> Unknown

<220>
<221> source
<223> /note="Description of Unknown:
signal peptide"

<400> 626
Met Asp Pro Lys Gly Ser Leu Ser Trp Arg Ile Leu Leu Phe Leu Ser
1 5 10 15

Leu Ala Phe Glu Leu Ser Tyr Gly
20

<210> 627
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 627
Phe Asp Phe Asp
1

<210> 628
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 628
Arg Val Ser Leu Thr Arg His Ala Ser Trp Asp Phe Asp Thr Phe Ser
1 5 10 15

Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala Val Tyr
20 25 30

Phe Cys Ala Arg
35

<210> 629
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 629

Arg Val Ser Leu Thr Arg His Ala Ser Phe Asp Phe Asp Thr Phe Ser
1 5 10 15

Phe Tyr Met Asp Leu Lys Ala Leu Arg Ser Asp Asp Thr Ala Val Tyr
20 25 30

Phe Cys Ala Arg
35

<210> 630

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 630

Thr Gly Gln Pro Asn Asn Pro Arg Gln Phe Gln Gly Arg Val Ser Leu
1 5 10 15

Thr Arg His Ala Ser Trp Asp Phe Asp Thr Phe Ser Phe Tyr Met Asp
20 25 30

Leu Lys

<210> 631

<211> 38

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 631

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Val Thr Ile Thr Cys Gln Ala Asn Gly Tyr Leu Asn Trp Tyr
20 25 30

Gln Gln Arg Arg Gly Lys
35

<210> 632

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 632

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Ala Gly Gly
1 5 10 15

Ser Leu Ile Leu Ser Cys Gly Val Ser Asn Phe Arg Ile Ser Ala His
20 25 30

Thr Met Asn Trp Val Arg Arg Val Pro Gly Gly Gly Leu Glu Trp Val
35 40 45

Ala Ser Ile Ser Thr Ser Ser Thr Tyr Arg Asp Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Val Ser Arg Asp Asp Leu Glu Asp Phe Val Tyr
65 70 75 80

Leu Gln Met His Lys Met Arg Val Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Lys Gly Ser Asp Arg Leu Ser Asp Asn Asp Pro Phe Asp Ala
100 105 110

Trp Gly Pro Gly Thr Val Val Thr Val Ser Pro Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu

305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala
	370					375					380				

Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr
385					390					395					400

Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu
				405					410					415	

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser
		435					440					445			

Leu Ser Pro Gly Lys
450

<210> 633

<211> 462

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 633

Glu Val Gln Leu Val Gln Ser Gly Thr Gln Met Lys Glu Pro Gly Ala
1 5 10 15

Ser Val Thr Ile Ser Cys Val Thr Ser Gly Tyr Glu Phe Val Glu Ile
20 25 30

Leu Ile Asn Trp Val Arg Gln Val Pro Gly Arg Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Arg Gly Gly Gly Val Asn Tyr Ala Arg Gln Phe
50 55 60

Gln Gly Lys Val Thr Met Thr Arg Asp Val Tyr Arg Asp Thr Ala Tyr
65 70 75 80

Leu Thr Leu Ser Gly Leu Thr Ser Gly Asp Thr Ala Lys Tyr Phe Cys
85 90 95

Val Arg Gly Arg Ser Cys Cys Gly Gly Arg Arg His Cys Asn Gly Ala
100 105 110

Asp Cys Phe Asn Trp Asp Phe Gln His Trp Gly Gln Gly Thr Leu Val
115 120 125

Ile Val Ser Pro Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
130 135 140

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
145 150 155 160

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
165 170 175

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
180 185 190

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
195 200 205

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
210 215 220

Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser
340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
435 440 445

Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 634

<211> 462

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 634

Glu Val Gln Leu Val Gln Ser Gly Thr Gln Met Lys Glu Pro Gly Ala
1 5 10 15

Ser Val Thr Ile Ser Cys Val Thr Ser Gly Tyr Glu Phe Val Glu Ile
20 25 30

Leu Ile Asn Trp Val Arg Gln Val Pro Gly Arg Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Arg Gly Gly Gly Val Asn Tyr Ala Arg Gln Phe
50 55 60

Gln Gly Lys Val Thr Met Thr Arg Asp Val Tyr Arg Asp Thr Ala Tyr
65 70 75 80

Leu Thr Leu Ser Gly Leu Thr Ser Gly Asp Thr Ala Lys Tyr Phe Cys
85 90 95

Val Arg Gly Lys Ser Cys Cys Ala Gly Arg Arg Phe Cys Gly Pro Thr
100 105 110

Asp Cys Tyr Asn Trp Asp Phe Ala His Trp Gly Gln Gly Thr Leu Val
115 120 125

Ile Val Ser Pro Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
130 135 140

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
145 150 155 160

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
165 170 175

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
180 185 190

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
195 200 205

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
210 215 220

Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro Asp Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr

290

295

300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys Thr Ile Ser
340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
435 440 445

Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 635

<211> 455

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 635

Gln Val Arg Leu Ser Gln Ser Gly Gly Gln Met Lys Lys Pro Gly Asp
1 5 10 15

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asn Cys
20 25 30

Pro Ile Asn Trp Ile Arg Leu Ala Pro Gly Lys Arg Pro Glu Trp Met
35 40 45

Gly Trp Met Lys Pro Arg Gly Gly Ala Val Ser Tyr Ala Arg Gln Leu
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Met Tyr Ser Glu Thr Ala Phe
65 70 75 80

Leu Glu Leu Arg Ser Leu Thr Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Thr Arg Gly Lys Tyr Cys Thr Ala Arg Asp Tyr Tyr Asn Trp Asp Phe
100 105 110

Glu His Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser Ala Ser Thr
115 120 125

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
130 135 140

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
145 150 155 160

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
165 170 175

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
180 185 190

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
195 200 205

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
210 215 220

Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
225 230 235 240

Glu Leu Leu Ala Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys
245 250 255

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
260 265 270

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
275 280 285

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
290 295 300

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
305 310 315 320

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
325 330 335

Pro Leu Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
340 345 350

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
355 360 365

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
370 375 380

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
385 390 395 400

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
405 410 415

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
420 425 430

Cys Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser
435 440 445

Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 636

<211> 465

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 636

Arg Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Lys
1 5 10 15

Ser Val Arg Leu Ser Cys Val Val Ser Asp Phe Pro Phe Ser Lys Tyr
20 25 30

Pro Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Ser Gly Asp Ala Trp His Val Val Tyr Ser Asn Ser Val
50 55 60

Gln Gly Arg Phe Leu Val Ser Arg Asp Asn Val Lys Asn Thr Leu Tyr
65 70 75 80

Leu Glu Met Asn Ser Leu Lys Ile Glu Asp Thr Ala Val Tyr Arg Cys
85 90 95

Ala Arg Met Phe Gln Glu Ser Gly Pro Pro Arg Leu Asp Arg Trp Ser
100 105 110

Gly Arg Asn Tyr Tyr Tyr Tyr Ser Gly Met Asp Val Trp Gly Gln Gly
115 120 125

Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
130 135 140

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
165 170 175

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
180 185 190

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
195 200 205

Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
210 215 220

Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
225 230 235 240

Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala Gly Pro
245 250 255

Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp

275

280

285

Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
305 310 315 320

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu Glu Lys
340 345 350

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
370 375 380

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu
435 440 445

Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

Lys
465

<210> 637

<211> 467

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 637

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Leu Ala Ser Gly Phe Thr Phe His Lys Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Leu Ile Ser Asp Asp Gly Met Arg Lys Tyr His Ser Asp Ser Met
50 55 60

Trp Gly Arg Val Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Phe Ser Ser Leu Lys Val Glu Asp Thr Ala Met Phe Phe Cys
85 90 95

Ala Arg Glu Ala Gly Gly Pro Ile Trp His Asp Asp Val Lys Tyr Tyr
100 105 110

Asp Phe Asn Asp Gly Tyr Tyr Asn Tyr His Tyr Met Asp Val Trp Gly
115 120 125

Lys Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
130 135 140

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
145 150 155 160

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
225 230 235 240

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Ala
245 250 255

Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
260 265 270

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
275 280 285

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
290 295 300

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
305 310 315 320

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
325 330 335

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Leu Pro Glu
340 345 350

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
355 360 365

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
370 375 380

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
385 390 395 400

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
405 410 415

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
420 425 430

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu
435 440 445

His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
450 455 460

Pro Gly Lys
465

<210> 638

<211> 470

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 638

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 Asn Ser Phe Ser Asn His
20 25 30

Asp Val His Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Ser His Glu Gly Asp Lys Thr Gly Leu Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Arg Asp Ser Gly Ala Ser Thr Val Tyr
65 70 75 80

Met Glu Leu Arg Gly Leu Thr Ala Asp Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Leu Thr Gly Ser Lys His Arg Leu Arg Asp Tyr Phe Leu Tyr Asn Glu
100 105 110

Tyr Gly Pro Asn Tyr Glu Glu Trp Gly Asp Tyr Leu Ala Thr Leu Asp
115 120 125

Val Trp Gly His Gly Thr Ala Val Thr Val Ser Ser Ala Ser Thr Lys
130 135 140

Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
145 150 155 160

Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
165 170 175

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
180 185 190

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
195 200 205

Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn
210 215 220

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro

225		230		235		240
Lys Ser Cys Asp	Lys Thr His Thr Cys	Pro Pro Cys Pro	Ala Pro Glu			
	245	250	255			
Leu Leu Ala Gly	Pro Asp Val Phe	Leu Phe Pro Pro	Lys Pro Lys Asp			
	260	265	270			
Thr Leu Met Ile	Ser Arg Thr	Pro Glu Val Thr	Cys Val Val Val Asp			
	275	280	285			
Val Ser His Glu	Asp Pro Glu Val	Lys Phe Asn Trp	Tyr Val Asp Gly			
	290	295	300			
Val Glu Val His	Asn Ala Lys Thr	Lys Pro Arg Glu	Glu Gln Tyr Asn			
305	310	315	320			
Ser Thr Tyr Arg	Val Val Ser Val	Leu Thr Val Leu	His Gln Asp Trp			
	325	330	335			
Leu Asn Gly Lys	Glu Tyr Lys Cys	Lys Val Ser Asn	Lys Ala Leu Pro			
	340	345	350			
Leu Pro Glu Glu	Lys Thr Ile Ser	Lys Ala Lys Gly	Gln Pro Arg Glu			
	355	360	365			
Pro Gln Val Tyr	Thr Leu Pro Pro	Ser Arg Glu Glu	Met Thr Lys Asn			
	370	375	380			
Gln Val Ser Leu	Thr Cys Leu Val	Lys Gly Phe Tyr	Pro Ser Asp Ile			
385	390	395	400			
Ala Val Glu Trp	Glu Ser Asn Gly	Gln Pro Glu Asn	Asn Tyr Lys Thr			
	405	410	415			
Thr Pro Pro Val	Leu Asp Ser Asp	Gly Ser Phe Phe	Leu Tyr Ser Lys			
	420	425	430			

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
435 440 445

Ser Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu
450 455 460

Ser Leu Ser Pro Gly Lys
465 470

<210> 639

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 639

Gln Val Gln Leu Val Gln Ser Gly Gly Gln Met Lys Lys Pro Gly Glu
1 5 10 15

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asp Cys
20 25 30

Thr Leu Asn Trp Ile Arg Leu Ala Pro Gly Lys Arg Pro Glu Trp Met
35 40 45

Gly Trp Leu Lys Pro Arg Gly Gly Ala Val Asn Tyr Ala Arg Pro Leu
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Val Tyr Ser Asp Thr Ala Phe
65 70 75 80

Leu Glu Leu Arg Ser Leu Thr Val Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Thr Arg Gly Lys Asn Cys Asp Tyr Asn Trp Asp Phe Glu His Trp Gly
100 105 110

Arg Gly Thr Pro Val Ile Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
290 295 300

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 640

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 640

Gln Val Gln Leu Val Gln Ser Gly Gly Gln Met Lys Lys Pro Gly Glu
1 5 10 15

Ser Met Arg Ile Ser Cys Arg Ala Ser Gly Tyr Glu Phe Ile Asp Cys
20 25 30

Thr Leu Asn Trp Ile Arg Leu Ala Pro Gly Lys Arg Pro Glu Trp Met
35 40 45

Gly Trp Leu Lys Pro Arg Gly Gly Ala Val Asn Tyr Ala Arg Pro Leu
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Val Tyr Ser Asp Thr Ala Phe
65 70 75 80

Leu Glu Leu Arg Ser Leu Thr Val Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Thr Arg Gly Lys Asn Cys Asp Tyr Asn Trp Asp Phe Glu His Trp Gly
100 105 110

Arg Gly Thr Pro Val Ile Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His

195

200

205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 290 295 300

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 641

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 641

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Ala Gly Gly
1 5 10 15

Ser Leu Ile Leu Ser Cys Gly Val Ser Asn Phe Arg Ile Ser Ala His
20 25 30

Thr Met Asn Trp Val Arg Arg Val Pro Gly Gly Gly Leu Glu Trp Val
35 40 45

Ala Ser Ile Ser Thr Ser Ser Thr Tyr Arg Asp Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Val Ser Arg Asp Asp Leu Glu Asp Phe Val Tyr
65 70 75 80

Leu Gln Met His Lys Met Arg Val Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Lys Gly Ser Asp Arg Leu Ser Asp Asn Asp Pro Phe Asp Ala
100 105 110

Trp Gly Pro Gly Thr Val Val Thr Val Ser Pro Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Leu Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Pro Glu Glu Gln Tyr Asn Ser
290 295 300

Thr Leu Arg Val Val Ser Ile Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Leu Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 642

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 642

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Ala Gly Gly
1 5 10 15

Ser Leu Ile Leu Ser Cys Gly Val Ser Asn Phe Arg Ile Ser Ala His
20 25 30

Thr Met Asn Trp Val Arg Arg Val Pro Gly Gly Gly Leu Glu Trp Val
35 40 45

Ala Ser Ile Ser Thr Ser Ser Thr Tyr Arg Asp Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Val Ser Arg Asp Asp Leu Glu Asp Phe Val Tyr
65 70 75 80

Leu Gln Met His Lys Met Arg Val Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Lys Gly Ser Asp Arg Leu Ser Asp Asn Asp Pro Phe Asp Ala
100 105 110

Trp Gly Pro Gly Thr Val Val Thr Val Ser Pro Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val

180

185

190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Val Gly Gly Pro Ser Val Phe Leu Leu Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Pro Glu Glu Gln Tyr Asn Ser
 290 295 300

Thr Leu Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Leu Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Leu His Glu Ala Leu His Ser His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 643
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 643
Asp Val Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ile Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Glu Thr Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Lys Ala Ser Thr Leu Lys Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Gln Phe
65 70 75 80

Asp Asp Phe Ala Thr Tyr His Cys Gln His Tyr Ala Gly Tyr Ser Ala
85 90 95

Thr Phe Gly Gln Gly Thr Arg Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 644

<211> 211

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 644

Tyr Ile Gly Val Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Leu Gly

1	5	10	15
Glu Arg Val Thr Leu Ser Cys Lys Thr Ser Gln Ala Ile Thr Pro Arg	20	25	30
His Leu Val Trp His Arg Gln Lys Gly Gly Gln Ala Pro Ser Leu Val	35	40	45
Met Thr Gly Thr Ser Glu Arg Ala Ser Gly Ile Pro Asp Arg Phe Ile	50	55	60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Arg Leu Glu	65	70	75
Ala Glu Asp Phe Ala Val Tyr Tyr Cys Gln Cys Leu Glu Ala Phe Gly	85	90	95
Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val	100	105	110
Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser	115	120	125
Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln	130	135	140
Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val	145	150	155
Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu	165	170	175
Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu	180	185	190
Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg	195	200	205

Gly Glu Cys
210

<210> 645

<211> 210

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 645

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Thr Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala
20 25 30

Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Val Ile Tyr Ser
35 40 45

Gly Ser Thr Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser Gly Ser Arg
50 55 60

Trp Gly Pro Asp Tyr Asn Leu Thr Ile Ser Asn Leu Glu Ser Gly Asp
65 70 75 80

Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr
85 90 95

Lys Val Gln Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
100 105 110

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val
115 120 125

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
130 135 140

Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr
145 150 155 160

Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr
165 170 175

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val
180 185 190

Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
195 200 205

Glu Cys
210

<210> 646

<211> 210

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 646

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Thr Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala
20 25 30

Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Val Ile Tyr Ser
35 40 45

Gly Ser Thr Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser Gly Ser Arg
50 55 60

Trp Gly Pro Asp Tyr Asn Leu Thr Ile Ser Asn Leu Glu Ser Gly Asp

65		70		75		80
Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr	85	90	95			
Lys Val Gln Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe	100	105	110			
Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val	115	120	125			
Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp	130	135	140			
Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr	145	150	155	160		
Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr	165	170	175			
Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val	180	185	190			
Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly	195	200	205			
Glu Cys	210					

<210> 647

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 647

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 Glu Ser Leu Arg Gln Ser
20 25 30

Asn Gly Lys Thr Ser Leu Tyr Trp Tyr Arg Gln Lys Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Val Phe Glu Val Ser Asn Arg Phe Ser Gly Val Ser
50 55 60

Asp Arg Phe Val 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 Phe Tyr Tyr Cys Met Gln Ser
85 90 95

Lys Asp Phe Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Leu Lys
100 105 110

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
115 120 125

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
130 135 140

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
145 150 155 160

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
165 170 175

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
180 185 190

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
195 200 205

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 648

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 648

Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Thr Ile Thr Ile Ser Cys Asn Gly Thr Ser Ser Asp Val Gly Gly Phe
20 25 30

Asp Ser Val Ser Trp Tyr Gln Gln Ser Pro Gly Lys Ala Pro Lys Val
35 40 45

Met Val Phe Asp Val Ser His Arg Pro Ser Gly Ile Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

His Ile Glu Asp Glu Gly Asp Tyr Phe Cys Ser Ser Leu Thr Asp Arg
85 90 95

Ser His Arg Ile Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly Gln
100 105 110

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr

130

135

140

Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys
 145 150 155 160

Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr
 165 170 175

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
 180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
 195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
 210 215

<210> 649

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 649

Glu Val Val Ile Thr Gln Ser Pro Leu Phe Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Ala Ala Ser Leu Ser Cys Lys Cys Ser His Ser Leu Gln His Ser
 20 25 30

Thr Gly Ala Asn Tyr Leu Ala Trp Tyr Leu Gln Arg Pro Gly Gln Thr
 35 40 45

Pro Arg Leu Leu Ile His Leu Ala Thr His 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 Ser Asp Asp Val Gly Thr Tyr Tyr Cys Met Gln Gly
85 90 95

Leu His Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
115 120 125

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
130 135 140

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
145 150 155 160

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
165 170 175

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
180 185 190

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
195 200 205

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 650

<211> 210

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 650

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Thr Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala
20 25 30

Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Val Ile Tyr Ser
35 40 45

Gly Ser Thr Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser Gly Ser Arg
50 55 60

Trp Gly Pro Asp Tyr Asn Leu Thr Ile Ser Asn Leu Glu Ser Gly Asp
65 70 75 80

Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr
85 90 95

Lys Val Gln Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
100 105 110

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val
115 120 125

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
130 135 140

Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr
145 150 155 160

Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr
165 170 175

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val
180 185 190

Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly

195

200

205

Glu Cys
210

<210> 651

<211> 210

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 651

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Thr Ala Ile Ile Ser Cys Arg Thr Ser Gln Tyr Gly Ser Leu Ala
20 25 30

Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Val Ile Tyr Ser
35 40 45

Gly Ser Thr Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser Gly Ser Arg
50 55 60

Trp Gly Pro Asp Tyr Asn Leu Thr Ile Ser Asn Leu Glu Ser Gly Asp
65 70 75 80

Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Glu Phe Phe Gly Gln Gly Thr
85 90 95

Lys Val Gln Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
100 105 110

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val
115 120 125

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
130 135 140

Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr
145 150 155 160

Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr
165 170 175

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val
180 185 190

Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
195 200 205

Glu Cys
210

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<213> Artificial Sequence

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<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

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Asp Val Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ile Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Glu Thr Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Lys Ala Ser Thr Leu Lys Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Gln Phe
65 70 75 80

Asp Asp Phe Ala Thr Tyr His Cys Gln His Tyr Ala Gly Tyr Ser Ala
85 90 95

Thr Phe Gly Gln Gly Thr Arg Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
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<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 653

Asp Val Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Thr Ile Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Glu Thr Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Lys Ala Ser Thr Leu Lys Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Gln Phe
65 70 75 80

Asp Asp Phe Ala Thr Tyr His Cys Gln His Tyr Ala Gly Tyr Ser Ala
85 90 95

Thr Phe Gly Gln Gly Thr Arg Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210