

SEQUENCE LISTING

<110> PFIZER INC.

<120> CHIMERIC ANTIGEN RECEPTORS TARGETING CD70

<130> ALGN-014/03WO 333466-2233

<150> US 62/775,246

<151> 2018-12-04

<150> US 62/641,873

<151> 2018-03-12

<150> US 62/641,869

<151> 2018-03-12

<150> US 62/625,019

<151> 2018-02-01

<150> US 62/625,009

<151> 2018-02-01

<160> 683

<170> PatentIn version 3.5

<210> 1

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 1

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

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

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

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

Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile

65					70						75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ala	
				85					90					95		

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

<210> 2
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic construct

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	Gly	Thr	Phe	Ser	Ser	Tyr	
			20					25					30			

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

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

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

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

Ala	Arg	Gly	Gly	Ser	Ser	Ser	Pro	Phe	Ala	Tyr	Trp	Gly	Gln	Gly	Thr	
			100					105					110			

Leu	Val	Thr	Val	Ser	Ser											
			115													

<210> 3

<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 3
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
1 5 10 15

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

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

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

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

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

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

<210> 4
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 4
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 Gly Thr Phe Ser Ser Tyr
20 25 30

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

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

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

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

Ala Arg Gly Gly Ser Ser Ser Pro Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 5

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 5

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

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

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

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Lys Phe Ser Gly
50 55 60

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

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

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

<210> 6

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 6

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

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

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

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

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

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

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

<210> 7

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 7

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

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30

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

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

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

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

Thr Tyr Trp Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 8

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 8

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

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

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

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

50

55

60

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

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

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

Val Thr Val Ser Ser
115

<210> 9

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 9

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

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

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

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

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

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

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys

100

105

<210> 10

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 10

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

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

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

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

Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Ser Arg Phe Ser Leu
65 70 75 80

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

Arg Gly Leu Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr
100 105 110

Val Ser Ser
115

<210> 11

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 11

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 Ser Gln Asp Ile Ser Asn Tyr
20 25 30

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

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

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

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

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

<210> 12

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 12

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

Ser Leu Arg Leu Ser Cys Glu Val Ser Gly Phe Thr Phe Thr Ser Tyr
20 25 30

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

Ser Ile Ile Ser Gly Val Ala Phe Thr Thr Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Val Lys Val Asp Gly Glu Val Tyr Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 13

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 13

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

Glu Arg Ala Ile Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

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

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

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

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

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

<210> 14
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 14
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 Glu Ala Ser Gly Gly Thr Phe Ile Thr Tyr
20 25 30

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

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

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

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

Ala Gln Trp Glu Leu Phe Phe Phe Asp Phe Trp Gly Gln Gly Thr Pro
100 105 110

Val Thr Val Ser Ser
115

<210> 15
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 15
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly

1 5 10 15

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

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

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

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

Pro Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95

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

<210> 16

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 16

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Tyr Tyr
 20 25 30

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

Ser His Ile Ser Ile Arg Ser Ser Thr Ile Tyr Phe Ala Asp Ser Ala
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr

65					70					75					80
Leu	Gln	Met	Asn	Ser	Leu	Arg	Asp	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Gly	Ser	Gly	Trp	Tyr	Gly	Asp	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln
			100					105					110		
Gly	Thr	Leu	Val	Thr	Val	Ser	Ser								
		115					120								

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<210> 17
<211> 107
<212> PRT
<213> Artificial Sequence
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<220>
<223> Description of Artificial Sequence: Synthetic construct

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<400> 17
Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser Ala Ser Val Gly
1           5           10          15
```

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

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

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

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

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

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

<210> 18

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

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 18

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

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

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

Trp	Leu	Ala	His	Ile	Phe	Ser	Asn	Asp	Glu	Lys	Ser	Tyr	Ser	Thr	Ser
	50					55					60				

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

Val	Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr
			85						90					95	

Cys	Ala	Arg	Ile	Arg	Asp	Tyr	Tyr	Asp	Ile	Ser	Ser	Tyr	Tyr	Asp	Tyr
			100					105					110		

Trp	Gly	Gln	Gly	Thr	Leu	Val	Ser	Val	Ser	Ser
		115					120			

<210> 19
<211> 107
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 19

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

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

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

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

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

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

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
100 105

<210> 20

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 20

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

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe Thr Phe Ser Asn His
20 25 30

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

Ser Tyr Ile Ser Arg Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

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

Thr Thr Val Thr Val Ser Ser
115

<210> 21

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 21

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

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

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

Pro Pro Asn Leu Leu Ile Phe Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

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

Tyr Tyr Ser Thr Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 22

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 22

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

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

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

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

Ala Arg Glu Gly Val Asn Trp Gly Trp Arg Leu Tyr Trp His Phe Asp
100 105 110

Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 23

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 23

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

Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser

20

25

30

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

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

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

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

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

<210> 24

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 24

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser His Ser Ser Ile Ser Arg Gly Asn Ile Tyr Phe Ala Asp Ser Val
50 55 60

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

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

85

90

95

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 25

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 25

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
20 25 30

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

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

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

Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
85 90 95

Ser Leu Ser Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 26

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 26

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Asn Tyr
20 25 30

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

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

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

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

Ala Arg Asp Phe Ile Ser Gly Thr Trp Tyr Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 27

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 27

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
20 25 30

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

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

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

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

Ser Leu Ser Ala Val Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 28

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 28

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Ser Ser Thr Val Asp Tyr Pro Gly Tyr Ser Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 29

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 29

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
20 25 30

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

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

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

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

Ser Leu Gly Ser Pro Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 30

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 30

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg Asp Ile Thr Ser Trp Tyr Tyr Gly Glu Pro Ala Phe Asp Ile
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 31

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 31

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

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

Arg Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu

35

40

45

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

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

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

Thr Met Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 32

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 32

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Lys Gly Leu Ser Gln Ala Met Thr Gly Phe Gly Phe Asp Tyr Trp

100

105

110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 33

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 33

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
20 25 30

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

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

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

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

Ser Leu Ser Gly Ser Val Val Phe Gly Thr Gly Thr Lys Leu Thr Val
100 105 110

Leu

<210> 34

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 34

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

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

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

Gly Ile Ile His Pro Asp Asp Ser Asp Thr Lys Tyr Ser Pro Ser Phe
50 55 60

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

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

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 35

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 35

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

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

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

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

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

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

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

<210> 36

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 36

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg Ala Ser Tyr Phe Asp Arg Gly Thr Gly Tyr Ser Ser Trp Trp
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 37

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 37

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

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

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

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

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

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

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

<210> 38

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 38

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gln Tyr
20 25 30

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

Ser Ala Ile Ser Gly Gly Gly Val Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Ser Asp Ile Ser Asp Ser Gly Gly Ser His Trp Tyr Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 39

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 39

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly
20 25 30

Arg Asn Tyr Val Tyr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys

35

40

45

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

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

Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
85 90 95

Ser Leu Ser Gly Arg Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 40

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 40

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser Thr Ile Ser Gly Thr Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Lys Val Arg Ala Gly Ile Asp Pro Thr Ala Ser Asp Val Trp Gly

100

105

110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 41

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 41

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
20 25 30

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

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

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

Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
85 90 95

Ser Leu Ser Ala Val Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 42

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 42

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

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

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

Ser Gly Ile Ser Gly Ser Gly Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Lys Asp Arg Asp Ile Gly Leu Gly Trp Tyr Ser Tyr Tyr Leu Asp
100 105 110

Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 43

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 43

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

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn Ser Asn Ile Gly
20 25 30

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

Leu Leu Ile Tyr Arg Ser Ser Arg Arg Pro Ser Gly Val Pro Asp Arg
50 55 60

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

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

Ser Leu Ser Gly His Trp Val Phe Gly Thr Gly Thr Lys Leu Thr Val
100 105 110

Leu

<210> 44

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 44

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 Gly Thr Phe Ser Ser Tyr
20 25 30

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 45

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 45

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

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

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

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

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

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

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

<210> 46

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 46

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

Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Ala Ser Tyr
20 25 30

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Lys Gly Leu Ser Ala Ser Ala Ser Gly Tyr Ser Phe Gln Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 47

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 47

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

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

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

35

40

45

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

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

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

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

<210> 48

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 48

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

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

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

Gly Met Ile Ser Pro Gly Gly Ser Thr Thr Ile Tyr Arg Pro Ser Phe
50 55 60

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg Glu Met Tyr Thr Gly Gly Tyr Gly Gly Ser Trp Tyr Phe Asp

100

105

110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 49

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 49

Ser Tyr Gly Phe Ser
1 5

<210> 50

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 50

Gly Gly Thr Phe Ser Ser Tyr
1 5

<210> 51

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 51

Gly Gly Thr Phe Ser Ser Tyr Gly Phe Ser
1 5 10

<210> 52

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 52

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

Gly

<210> 53

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 53

Ile Pro Ile Phe Gly Ser
1 5

<210> 54

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 54

Gly Gly Ser Ser Ser Pro Phe Ala Tyr
1 5

<210> 55

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 55

Ser Tyr Gly Phe Ser
1 5

<210> 56
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 56
Gly Gly Thr Phe Ser Ser Tyr
1 5

<210> 57
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 57
Gly Gly Thr Phe Ser Ser Tyr Gly Phe Ser
1 5 10

<210> 58
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 58
Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 59
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

construct

<400> 59

Ile Pro Ile Phe Gly Thr

1 5

<210> 60

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 60

Gly Gly Ser Ser Ser Pro Phe Ala Tyr

1 5

<210> 61

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 61

Ser Tyr Tyr Trp Asn

1 5

<210> 62

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 62

Gly Gly Ser Ile Ser Ser Tyr

1 5

<210> 63

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 63

Gly Gly Ser Ile Ser Ser Tyr Tyr Trp Asn
1 5 10

<210> 64

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 64

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

<210> 65

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 65

Tyr Tyr Ser Gly Ser
1 5

<210> 66

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 66

Asp Ile Arg Thr Trp
1 5

<210> 67

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 67

Asn Ser Trp Met Ser
1 5

<210> 68

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 68

Gly Phe Thr Phe Arg Asn Ser
1 5

<210> 69

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 69

Gly Phe Thr Phe Arg Asn Ser Trp Met Ser
1 5 10

<210> 70

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 70

Asn Ile Lys Arg Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val Lys
1 5 10 15

Gly

<210> 71
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 71
Lys Arg Asp Gly Ser Glu
1 5

<210> 72
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 72
Asp Gln Thr Gly Ser Phe Asp Tyr
1 5

<210> 73
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 73
Val Tyr Tyr Trp Ser
1 5

<210> 74
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 74

Asp Asp Ser Ile Ser Val Tyr
1 5

<210> 75

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 75

Asp Asp Ser Ile Ser Val Tyr Tyr Trp Ser
1 5 10

<210> 76

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 76

Val Tyr Ser Ser Gly Asn Ile Asn Tyr Asn Pro Ser Leu Glu Ser
1 5 10 15

<210> 77

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 77

Tyr Ser Ser Gly Asn
1 5

<210> 78

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 78

Gly Leu Asp Ala Phe Asp Ile

1 5

<210> 79

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 79

Ser Tyr Ala Met Ser

1 5

<210> 80

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 80

Gly Phe Thr Phe Thr Ser Tyr

1 5

<210> 81

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 81

Gly Phe Thr Phe Thr Ser Tyr Ala Met Ser

1 5 10

<210> 82

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 82

Arg	Val	Tyr	Ser	Ser	Gly	Asn	Ile	Asn	Tyr	Asn	Pro	Ser	Leu	Glu	Ser
1				5				10					15		

<210> 83

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 83

Tyr	Ser	Ser	Gly	Asn
1				5

<210> 84

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 84

Gly	Leu	Asp	Ala	Phe	Asp	Ile
1				5		

<210> 85

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 85

Thr	Tyr	Ala	Ile	Ser
1				5

<210> 86

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 86

Gly Gly Thr Phe Ile Thr Tyr
1 5

<210> 87

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 87

Gly Gly Thr Phe Ile Thr Tyr Ala Ile Ser
1 5 10

<210> 88

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 88

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

Gly

<210> 89

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 89

Ile Pro Phe Phe Gly Thr

1 5

<210> 90

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 90

Trp Glu Leu Phe Phe Phe Asp Phe

1 5

<210> 91

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 91

Tyr Tyr Ser Met Asn

1 5

<210> 92

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 92

Gly Phe Thr Phe Thr Tyr Tyr

1 5

<210> 93

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 93

Gly Phe Thr Phe Thr Tyr Tyr Ser Met Asn
1 5 10

<210> 94

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 94

His Ile Ser Ile Arg Ser Ser Thr Ile Tyr Phe Ala Asp Ser Ala Lys
1 5 10 15

Gly

<210> 95

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 95

Ser Ile Arg Ser Ser Thr
1 5

<210> 96

<211> 11

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 96

Gly Ser Gly Trp Tyr Gly Asp Tyr Phe Asp Tyr
1 5 10

<210> 97

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 97

Asn Ala Arg Met Gly Val Thr
1 5

<210> 98

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 98

Gly Phe Ser Leu Ser Asn Ala Arg Met
1 5

<210> 99

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 99

Gly Phe Ser Leu Ser Asn Ala Arg Met Gly Val Thr
1 5 10

<210> 100

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 100

His Ile Phe Ser Asn Asp Glu Lys Ser Tyr Ser Thr Ser Leu Lys Ser
1 5 10 15

<210> 101

<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 101
Phe Ser Asn Asp Glu
1 5

<210> 102
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 102
Ile Arg Asp Tyr Tyr Asp Ile Ser Ser Tyr Tyr Asp Tyr
1 5 10

<210> 103
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 103
Asn His Asn Ile His
1 5

<210> 104
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 104
Gly Phe Thr Phe Ser Asn His
1 5

<210> 105
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 105
Gly Phe Thr Phe Ser Asn His Asn Ile His
1 5 10

<210> 106
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 106
Tyr Ile Ser Arg Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 107
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 107
Ser Arg Ser Ser Ser Thr
1 5

<210> 108
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

construct

<400> 108

Asp His Ala Gln Trp Tyr Gly Met Asp Val
1 5 10

<210> 109

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 109

Ser Tyr Trp Met Ser
1 5

<210> 110

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 110

Gly Phe Thr Phe Ser Ser Tyr
1 5

<210> 111

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 111

Gly Phe Thr Phe Ser Ser Tyr Trp Met Ser
1 5 10

<210> 112

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 112

Ser	Ile	Lys	Gln	Asp	Gly	Ser	Glu	Lys	Tyr	Tyr	Val	Asp	Ser	Val	Lys
1				5				10						15	

Gly

<210> 113

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 113

Lys	Gln	Asp	Gly	Ser	Glu
1				5	

<210> 114

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 114

Glu	Gly	Val	Asn	Trp	Gly	Trp	Arg	Leu	Tyr	Trp	His	Phe	Asp	Leu
1				5				10						15

<210> 115

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 115

Ser	Tyr	Ser	Met	Asn
1				5

<210> 116
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 116
Gly Phe Thr Phe Ser Ser Tyr
1 5

<210> 117
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 117
Gly Phe Thr Phe Ser Ser Tyr Ser Met Asn
1 5 10

<210> 118
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 118
His Ser Ser Ile Ser Arg Gly Asn Ile Tyr Phe Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 119
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

construct

<400> 119

Ser Ile Ser Arg Gly Asn

1 5

<210> 120

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 120

Gly Ser Gly Trp Tyr Gly Asp Tyr Phe Asp Tyr

1 5 10

<210> 121

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 121

Asn Tyr Ala Met Ser

1 5

<210> 122

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 122

Gly Phe Ala Phe Ser Asn Tyr

1 5

<210> 123

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 123

Gly Phe Ala Phe Ser Asn Tyr Ala Met Ser
1 5 10

<210> 124

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 124

Ala Ile Arg Gly Gly Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 125

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 125

Arg Gly Gly Gly Gly Ser
1 5

<210> 126

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 126

Asp Phe Ile Ser Gly Thr Trp Tyr Pro Asp Tyr
1 5 10

<210> 127
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 127
Ser Tyr Trp Ile Gly
1 5

<210> 128
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 128
Gly Tyr Arg Phe Thr Ser Tyr
1 5

<210> 129
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 129
Gly Tyr Arg Phe Thr Ser Tyr Trp Ile Gly
1 5 10

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

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 130
Ser Ile Tyr Pro Asp Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe Gln

1	5	10	15
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Gly

<210> 131
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 131
Tyr Pro Asp Asp Ser Asp
1 5

<210> 132
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 132
Ser Thr Val Asp Tyr Pro Gly Tyr Ser Tyr Phe Asp Tyr
1 5 10

<210> 133
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 133
Asn Tyr Trp Ile Ala
1 5

<210> 134
<211> 7
<212> PRT
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<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 134

Gly Tyr Thr Phe Thr Asn Tyr
1 5

<210> 135

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 135

Gly Tyr Thr Phe Thr Asn Tyr Trp Ile Ala
1 5 10

<210> 136

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 136

Ile Ile Tyr Pro Asp Gly Ser Asp Thr Arg Tyr Ser Pro Ser Phe Gln
1 5 10 15

Gly

<210> 137

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 137

Tyr Pro Asp Gly Ser Asp
1 5

<210> 138
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 138
Asp Ile Thr Ser Trp Tyr Tyr Gly Glu Pro Ala Phe Asp Ile
1 5 10

<210> 139
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 139
Ser Ser Trp Ile Gly
1 5

<210> 140
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 140
Gly Tyr Ser Phe Thr Ser Ser
1 5

<210> 141
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 141
Gly Tyr Ser Phe Thr Ser Ser Trp Ile Gly

1 5 10

<210> 142
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 142
Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe Gln
1 5 10 15

Gly

<210> 143
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 143
Tyr Pro Gly Asp Ser Asp
1 5

<210> 144
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 144
Gly Leu Ser Gln Ala Met Thr Gly Phe Gly Phe Asp Tyr
1 5 10

<210> 145
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 145

Ser Tyr Trp Ile Gly
1 5

<210> 146

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 146

Gly Tyr Gly Phe Thr Ser Tyr
1 5

<210> 147

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 147

Gly Tyr Gly Phe Thr Ser Tyr Trp Ile Gly
1 5 10

<210> 148

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 148

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

Gly

<210> 149
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 149
His Pro Asp Asp Ser Asp
1 5

<210> 150
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 150
Ser Tyr Leu Arg Gly Leu Trp Gly Gly Tyr Phe Asp Tyr
1 5 10

<210> 151
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 151
Ser Ser Trp Ile Gly
1 5

<210> 152
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 152
Gly Tyr Thr Phe Pro Ser Ser

1 5

<210> 153
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 153
Gly Tyr Thr Phe Pro Ser Ser Trp Ile Gly
1 5 10

<210> 154
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 154
Ile Ile Tyr Pro Asp Thr Ser His Thr Arg Tyr Ser Pro Ser Phe Gln
1 5 10 15

<210> 155
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 155
Tyr Pro Asp Thr Ser His
1 5

<210> 156
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 156

Ala Ser Tyr Phe Asp Arg Gly Thr Gly Tyr Ser Ser Trp Trp Met Asp
1 5 10 15

Val

<210> 157

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 157

Gln Tyr Ser Met Ser
1 5

<210> 158

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 158

Gly Phe Thr Phe Ser Gln Tyr
1 5

<210> 159

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 159

Gly Phe Thr Phe Ser Gln Tyr Ser Met Ser
1 5 10

<210> 160

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 160

Ala	Ile	Ser	Gly	Gly	Gly	Val	Ser	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	Lys
1				5					10					15	

Gly

<210> 161

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 161

Ser	Gly	Gly	Gly	Val	Ser
1				5	

<210> 162

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 162

Asp	Ile	Ser	Asp	Ser	Gly	Gly	Ser	His	Trp	Tyr	Phe	Asp	Tyr
1				5				10					

<210> 163

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 163

Ser Tyr Ala Met Ser

1 5

<210> 164
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 164
Gly Phe Thr Phe Ser Ser Tyr
1 5

<210> 165
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 165
Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser
1 5 10

<210> 166
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 166
Thr Ile Ser Gly Thr Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 167
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 167

Ser Gly Thr Gly Gly Thr
1 5

<210> 168

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 168

Val Arg Ala Gly Ile Asp Pro Thr Ala Ser Asp Val
1 5 10

<210> 169

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 169

Asn Phe Ala Met Ser
1 5

<210> 170

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 170

Gly Phe Thr Phe Asn Asn Phe
1 5

<210> 171

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 171

Gly	Phe	Thr	Phe	Asn	Asn	Phe	Ala	Met	Ser
1				5				10	

<210> 172

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 172

Gly	Ile	Ser	Gly	Ser	Gly	Asp	Asn	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	Lys
1				5				10						15	

Gly

<210> 173

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 173

Ser	Gly	Ser	Gly	Asp	Asn
1				5	

<210> 174

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 174

Asp Arg Asp Ile Gly Leu Gly Trp Tyr Ser Tyr Tyr Leu Asp Val

1	5	10	15
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<210> 175
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 175
Ser Tyr Ala Ile Ser
1 5

<210> 176
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 176
Gly Gly Thr Phe Ser Ser Tyr
1 5

<210> 177
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 177
Gly Gly Thr Phe Ser Ser Tyr Ala Ile Ser
1 5 10

<210> 178
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 178

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

Gly

<210> 179

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 179

Ile Pro Ile Phe Gly Thr
1 5

<210> 180

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 180

Ala Gly Trp Asp Asp Ser Trp Phe Asp Tyr
1 5 10

<210> 181

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 181

Ser Tyr Trp Ile Gly
1 5

<210> 182

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 182

Gly	Tyr	Ser	Phe	Ala	Ser	Tyr
1				5		

<210> 183

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 183

Gly	Tyr	Ser	Phe	Ala	Ser	Tyr	Trp	Ile	Gly
1				5					10

<210> 184

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 184

Val	Ile	Tyr	Pro	Gly	Thr	Ser	Glu	Thr	Arg	Tyr	Ser	Pro	Ser	Phe	Gln
1				5					10					15	

Gly

<210> 185

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 185

Tyr Pro Gly Thr Ser Glu

1

5

<210> 186

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 186

Gly Leu Ser Ala Ser Ala Ser Gly Tyr Ser Phe Gln Tyr

1

5

10

<210> 187

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 187

Asp Tyr Trp Ile Gly

1

5

<210> 188

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 188

Gly Tyr Ser Phe Thr Asp Tyr

1

5

<210> 189

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 189

Gly Tyr Ser Phe Thr Asp Tyr Trp Ile Gly
1 5 10

<210> 190

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 190

Met Ile Ser Pro Gly Gly Ser Thr Thr Ile Tyr Arg Pro Ser Phe Gln
1 5 10 15

Gly

<210> 191

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 191

Ser Pro Gly Gly Ser Thr
1 5

<210> 192

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 192

Met Tyr Thr Gly Gly Tyr Gly Gly Ser Trp Tyr Phe Asp Tyr
1 5 10

<210> 193

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 193

Arg	Ser	Ser	Gln	Ser	Leu	Val	His	Ser	Asp	Gly	Asn	Thr	Tyr	Leu	Ser
1				5					10					15	

<210> 194

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 194

Lys	Ile	Ser	Asn	Arg	Phe	Ser
1			5			

<210> 195

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 195

Met	Gln	Ala	Thr	Gln	Phe	Pro	Leu	Thr
1				5				

<210> 196

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 196

Arg	Ser	Ser	Gln	Ser	Leu	Val	His	Ser	Asp	Gly	Asn	Thr	Tyr	Leu	Ser
1				5					10					15	

<210> 197

<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 197
Lys Ile Ser Asn Arg Phe Ser
1 5

<210> 198
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 198
Met Gln Ala Thr Gln Phe Pro Leu Thr
1 5

<210> 199
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 199
Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu Ala
1 5 10

<210> 200
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 200
Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 201
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 201
Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
1 5

<210> 202
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 202
Arg Ser Ser Gln Ser Leu Val Tyr Ser Asp Glu Asn Thr Tyr Leu Asn
1 5 10 15

<210> 203
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 203
Gln Val Ser Asn Arg Asp Ser
1 5

<210> 204
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 204
Met Gln Gly Thr Tyr Trp Pro Pro Thr

1 5

<210> 205
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 205
Arg Ala Ser Gln Ser Val Ser Ser Ser Leu Ala
1 5 10

<210> 206
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 206
Gly Ala Ser Thr Arg Ala Thr
1 5

<210> 207
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 207
Gln Gln Tyr Ile Asn Trp Pro His
1 5

<210> 208
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 208

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

<210> 209

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 209

Gly Ala Ser Asn Leu Glu Thr
1 5

<210> 210

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 210

Gln Gln Tyr Asp Asn Phe Pro Ile Thr
1 5

<210> 211

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 211

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 212

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 212

Ser Ala Ser Thr Arg Ala Ser
1 5

<210> 213

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 213

Gln Gln Tyr Asp Asn Trp Pro Pro Leu Thr
1 5 10

<210> 214

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 214

Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 215

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 215

Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 216

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 216

Gln Gln Tyr Gly Ser Ser Pro Leu Thr
1 5

<210> 217

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 217

Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Ala
1 5 10

<210> 218

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 218

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 219

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 219

Leu Gln Leu Asn Ser Phe Pro Phe Thr
1 5

<210> 220

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 220

Arg Ala Ser Gln Gly Ile Ser Ser Trp Leu Ala
1 5 10

<210> 221

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 221

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 222

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 222

Gln Gln Ala Phe Ser Phe Pro Phe Thr
1 5

<210> 223

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 223

Lys Ser Ser Gln Ser Val Leu Tyr Ser Tyr Asn Asn Lys Asn Tyr Val
1 5 10 15

Ala

<210> 224
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 224
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 225
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 225
Gln Gln Tyr Tyr Ser Thr Leu Thr
1 5

<210> 226
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 226
Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 227
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 227

Asp Ala Ser Ser Arg Ala Thr
1 5

<210> 228

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 228

Gln Gln Tyr Gly Ser Ser Pro Leu Thr
1 5

<210> 229

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 229

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Tyr
1 5 10

<210> 230

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 230

Arg Asn Asn Gln Arg Pro Ser
1 5

<210> 231

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 231

Ala Ala Trp Asp Asp Ser Leu Ser Gly Val Val
1 5 10

<210> 232

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 232

Ser Gly Ser Arg Ser Asn Ile Gly Ser Asn Tyr Val Tyr
1 5 10

<210> 233

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 233

Arg Asn Asn Gln Arg Pro Ser
1 5

<210> 234

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 234

Ala Ser Trp Asp Gly Ser Leu Ser Ala Val Val
1 5 10

<210> 235

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 235

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Tyr
1 5 10

<210> 236

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 236

Arg Asn Asn Gln Arg Pro Ser
1 5

<210> 237

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 237

Ala Thr Trp Asp Asp Ser Leu Gly Ser Pro Val
1 5 10

<210> 238

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 238

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

<210> 239

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 239

Ala Ala Ser Ile Leu Gln Thr
1 5

<210> 240

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 240

Gln Gln Ser Tyr Ser Thr Thr Met Trp Thr
1 5 10

<210> 241

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 241

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn
1 5 10

<210> 242

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 242

Gly Asp Tyr Gln Arg Pro Ser
1 5

<210> 243

<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 243

Ala Thr Arg Asp Asp Ser Leu Ser Gly Ser Val Val
1 5 10

<210> 244

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 244

Arg Ala Ser Gln Ser Ile Tyr Asp Tyr Leu His
1 5 10

<210> 245

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 245

Asp Ala Ser Asn Leu Gln Ser
1 5

<210> 246

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 246

Gln Gln Ser Tyr Thr Thr Pro Leu Phe Thr
1 5 10

<210> 247
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 247
Arg Ala Ser Gln Tyr Ile Gly Arg Tyr Leu Asn
1 5 10

<210> 248
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 248
Gly Ala Thr Ser Leu Ala Ser
1 5

<210> 249
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 249
Gln Gln Ser Tyr Ser Thr Thr Ser Pro Thr
1 5 10

<210> 250
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 250
Ser Gly Ser Thr Ser Asn Ile Gly Arg Asn Tyr Val Tyr

1 5 10

<210> 251

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 251

Arg Thr Asn Gln Arg Pro Ser

1 5

<210> 252

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 252

Ala Ala Trp Asp Asp Ser Leu Ser Gly Arg Val

1 5 10

<210> 253

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 253

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Tyr

1 5 10

<210> 254

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 254
Met Asn Asn Gln Arg Pro Ser
1 5

<210> 255
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 255
Ala Ala Trp Asp Asp Ser Leu Ser Ala Val Val
1 5 10

<210> 256
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 256
Ser Gly Ser Asn Ser Asn Ile Gly Thr Asn Tyr Val Ser
1 5 10

<210> 257
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 257
Arg Ser Ser Arg Arg Pro Ser
1 5

<210> 258
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

construct

<400> 258

Ala Ala Trp Asp Gly Ser Leu Ser Gly His Trp Val
1 5 10

<210> 259

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 259

Arg Ala Ser Gln Ser Ile Asp Thr Tyr Leu Asn
1 5 10

<210> 260

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 260

Ser Ala Ser Ser Leu His Ser
1 5

<210> 261

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 261

Gln Gln Ser Tyr Ser Thr Thr Ala Trp Thr
1 5 10

<210> 262

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 262

Arg Ala Ser Gln Ser Ile Gly Gln Ser Leu Asn
1 5 10

<210> 263

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 263

Gly Ala Ser Ser Leu Gln Ser
1 5

<210> 264

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 264

Gln Gln Ser Tyr Ser Thr Pro Ile Thr
1 5

<210> 265

<400> 265

000

<210> 266

<211> 21

<212> PRT

<213> Homo sapiens

<400> 266

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro

20

<210> 267
<211> 16
<212> PRT
<213> Homo sapiens

<400> 267
Gly Leu Ala Val Ser Thr Ile Ser Ser Phe Phe Pro Pro Gly Tyr Gln
1 5 10 15

<210> 268
<211> 45
<212> PRT
<213> Homo sapiens

<400> 268
Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
1 5 10 15

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

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp
35 40 45

<210> 269
<211> 231
<212> PRT
<213> Homo sapiens

<400> 269
Glu Pro Lys Ser Pro Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
20 25 30

Asp Thr Leu Met Ile Ala Arg Thr Pro Glu Val Thr Cys Val Val Val
35 40 45

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
50 55 60

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

20

<210> 271

<211> 42

<212> PRT

<213> Homo sapiens

<400> 271

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
1 5 10 15

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
20 25 30

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
35 40

<210> 272

<211> 112

<212> PRT

<213> Homo sapiens

<400> 272

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
1 5 10 15

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30

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

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 273

<211> 52

<212> PRT

<213> Homo sapiens

<400> 273

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

Leu Phe Ile Ser Thr Gln Gln Gln Val Thr Phe Leu Leu Lys Ile Lys
20 25 30

Arg Thr Arg Lys Gly Phe Arg Leu Leu Asn Pro His Pro Lys Pro Asn
35 40 45

Pro Lys Asn Asn
50

<210> 274

<211> 215

<212> PRT

<213> Homo sapiens

<400> 274

Met Asp Thr Glu Ser Asn Arg Arg Ala Asn Leu Ala Leu Pro Gln Glu
1 5 10 15

Pro Ser Ser Val Pro Ala Phe Glu Val Leu Glu Ile Ser Pro Gln Glu
20 25 30

Val Ser Ser Gly Arg Leu Leu Lys Ser Ala Ser Ser Pro Pro Leu His
35 40 45

Thr Trp Leu Thr Val Leu Lys Lys Glu Gln Glu Phe Leu Gly Val Thr
50 55 60

Gln Ile Leu Thr Ala Met Ile Cys Leu Cys Phe Gly Thr Val Val Cys
65 70 75 80

Ser Val Leu Asp Ile Ser His Ile Glu Gly Asp Ile Phe Ser Ser Phe
85 90 95

Lys Ala Gly Tyr Pro Phe Trp Gly Ala Ile Phe Phe Ser Ile Ser Gly

100

105

110

Met Leu Ser Ile Ile Ser Glu Arg Arg Asn Ala Thr Tyr Leu Val Arg
115 120 125

Gly Ser Leu Gly Ala Asn Thr Ala Ser Ser Ile Ala Gly Gly Thr Gly
130 135 140

Ile Thr Ile Leu Ile Ile Asn Leu Lys Lys Ser Leu Ala Tyr Ile His
145 150 155 160

Ile His Ser Cys Gln Lys Phe Phe Glu Thr Lys Cys Phe Met Ala Ser
165 170 175

Phe Ser Thr Glu Ile Val Val Met Met Leu Phe Leu Thr Ile Leu Gly
180 185 190

Leu Gly Ser Ala Val Ser Leu Thr Ile Cys Gly Ala Gly Glu Glu Leu
195 200 205

Lys Gly Asn Lys Val Pro Glu
210 215

<210> 275

<211> 42

<212> PRT

<213> Homo sapiens

<400> 275

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
1 5 10 15

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
20 25 30

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
35 40

<210> 276

<211> 41

<212> PRT

<213> Homo sapiens

<400> 276

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

Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala Pro
20 25 30

Pro Arg Asp Phe Ala Ala Tyr Arg Ser
35 40

<210> 277

<211> 18

<212> PRT

<213> Homo sapiens

<400> 277

Met Ile Pro Ala Val Val Leu Leu Leu Leu Leu Val Glu Gln Ala
1 5 10 15

Ala Ala

<210> 278

<211> 43

<212> PRT

<213> Homo sapiens

<400> 278

Leu Gly Glu Pro Gln Leu Cys Tyr Ile Leu Asp Ala Ile Leu Phe Leu
1 5 10 15

Tyr Gly Ile Val Leu Thr Leu Leu Tyr Cys Arg Leu Lys Ile Gln Val
20 25 30

Arg Lys Ala Ala Ile Thr Ser Tyr Glu Lys Ser
35 40

<210> 279

<211> 22

<212> PRT

<213> Homo sapiens

<400> 279

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

Glu Glu Asn Pro Gly Pro
20

<210> 280

<211> 21

<212> PRT

<213> Homo sapiens

<400> 280

Gly Ser Gly Glu Gly Arg Gly Ser Leu Leu Thr Cys Gly Asp Val Glu
1 5 10 15

Glu Asn Pro Gly Pro
20

<210> 281

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 281

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
65 70 75 80

Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala

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

Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys
325 330 335

Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser Asn
340 345 350

Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala Leu Leu Pro Val
355 360 365

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
370 375 380

Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu
385 390 395 400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
405 410 415

Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala
420 425 430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val
435 440 445

Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu
465 470 475 480

Gln Val Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu
485 490 495

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu

530

<210> 282

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 282

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His
65 70 75 80

Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala
100 105 110

Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala Leu Leu
115 120 125

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala
130 135 140

Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
145 150 155 160

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val

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

Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu
385 390 395 400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
405 410 415

Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala
420 425 430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
435 440 445

Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln
465 470 475 480

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

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 283

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 283

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
65 70 75 80

Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
100 105 110

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

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala
130 135 140

Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
145 150 155 160

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val
165 170 175

Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val
180 185 190

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln
195 200 205

Gln Val Val Ala Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu
210 215 220

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

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

Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu
465 470 475 480

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

Thr Val Gln Ala Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 284

<211> 539

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 284

Asn Pro Gln Arg Ser Thr Val Trp Tyr Leu Thr Pro Gln Gln Val Val
1 5 10 15

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

Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln
35 40 45

Val Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr
50 55 60

Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro
65 70 75 80

Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala Leu
85 90 95

Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu
100 105 110

Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly Gly Lys Gln
115 120 125

Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His
130 135 140

Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His Asp Gly Gly
145 150 155 160

Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln
165 170 175

Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His Asp
180 185 190

Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu
195 200 205

Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser
210 215 220

Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro
225 230 235 240

Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile
245 250 255

Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu
260 265 270

Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val
275 280 285

Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln

290

295

300

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

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

Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro
340 345 350

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

Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu
370 375 380

Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly Gly Lys Gln
385 390 395 400

Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His
405 410 415

Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly Gly
420 425 430

Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln
435 440 445

Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly
450 455 460

Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu
465 470 475 480

Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser
485 490 495

Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro
500 505 510

Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile
515 520 525

Ala Ser Asn Gly Gly Gly Arg Pro Ala Leu Glu
530 535

<210> 285

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 285

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

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

His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His Asp Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His
65 70 75 80

Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala
100 105 110

Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala Leu Leu
115 120 125

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
130 135 140

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

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
165 170 175

Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val
180 185 190

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

Gln Val Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu
210 215 220

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
225 230 235 240

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala
245 250 255

Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly
260 265 270

Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser Asn Ile Gly Gly Lys
275 280 285

Gln Ala Leu Glu Thr Val Gln Ala Leu Leu Pro Val Leu Cys Gln Ala
290 295 300

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly
305 310 315 320

Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys
325 330 335

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
340 345 350

Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val

355

360

365

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
370 375 380

Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu
385 390 395 400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
405 410 415

Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
420 425 430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val
435 440 445

Val Ala Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu
465 470 475 480

Gln Val Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu
485 490 495

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 286

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

construct

<400> 286

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
65 70 75 80

Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala
100 105 110

Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala Leu Leu
115 120 125

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala
130 135 140

Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
145 150 155 160

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
165 170 175

Val Ala Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val
180 185 190

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

Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu
210 215 220

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
225 230 235 240

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

Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly
260 265 270

Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Lys
275 280 285

Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala
290 295 300

His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His Asp Gly
305 310 315 320

Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys
325 330 335

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
340 345 350

Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
355 360 365

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
370 375 380

Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu
385 390 395 400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
405 410 415

Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg

420

425

430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val
435 440 445

Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln
465 470 475 480

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

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 287

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 287

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

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

His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His Asp Gly
35 40 45

Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys

50

55

60

Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His
65 70 75 80

Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
100 105 110

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

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
130 135 140

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

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
165 170 175

Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val
180 185 190

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln
195 200 205

Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu
210 215 220

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
225 230 235 240

Pro Glu Gln Val Val Ala Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala
245 250 255

Leu Glu Thr Val Gln Ala Leu Leu Pro Val Leu Cys Gln Ala His Gly
260 265 270

Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His Asp Gly Gly Lys
275 280 285

Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala
290 295 300

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly
305 310 315 320

Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val Leu Cys
325 330 335

Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His
340 345 350

Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
355 360 365

Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala
370 375 380

Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Ala Leu Leu
385 390 395 400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
405 410 415

Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
420 425 430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
435 440 445

Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu
465 470 475 480

Gln Val Val Ala Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu

485

490

495

Thr Val Gln Ala Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 288

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 288

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala Ser His
65 70 75 80

Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
100 105 110

Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu

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

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
340 345 350

Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
355 360 365

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
370 375 380

Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu
385 390 395 400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala
405 410 415

Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
420 425 430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
435 440 445

Val Ala Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Ala Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu
465 470 475 480

Gln Val Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu
485 490 495

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 289

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 289

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Asn Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
65 70 75 80

Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala Ile Ala
100 105 110

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

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala
130 135 140

Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
145 150 155 160

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val
165 170 175

Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu Thr Val

			180					185						190	
Gln	Arg	Leu	Leu	Pro	Val	Leu	Cys	Gln	Ala	His	Gly	Leu	Thr	Pro	Gln
		195					200					205			
Gln	Val	Val	Ala	Ile	Ala	Ser	Asn	Gly	Gly	Gly	Lys	Gln	Ala	Leu	Glu
	210					215					220				
Thr	Val	Gln	Arg	Leu	Leu	Pro	Val	Leu	Cys	Gln	Ala	His	Gly	Leu	Thr
225					230					235					240
Pro	Gln	Gln	Val	Val	Ala	Ile	Ala	Ser	Asn	Gly	Gly	Gly	Lys	Gln	Ala
				245					250					255	
Leu	Glu	Thr	Val	Gln	Arg	Leu	Leu	Pro	Val	Leu	Cys	Gln	Ala	His	Gly
			260					265					270		
Leu	Thr	Pro	Glu	Gln	Val	Val	Ala	Ile	Ala	Ser	His	Asp	Gly	Gly	Lys
		275					280					285			
Gln	Ala	Leu	Glu	Thr	Val	Gln	Arg	Leu	Leu	Pro	Val	Leu	Cys	Gln	Ala
	290					295					300				
His	Gly	Leu	Thr	Pro	Gln	Gln	Val	Val	Ala	Ile	Ala	Ser	Asn	Gly	Gly
305					310					315					320
Gly	Lys	Gln	Ala	Leu	Glu	Thr	Val	Gln	Arg	Leu	Leu	Pro	Val	Leu	Cys
				325					330					335	
Gln	Ala	His	Gly	Leu	Thr	Pro	Gln	Gln	Val	Val	Ala	Ile	Ala	Ser	Asn
			340					345					350		
Gly	Gly	Gly	Lys	Gln	Ala	Leu	Glu	Thr	Val	Gln	Arg	Leu	Leu	Pro	Val
	355						360					365			
Leu	Cys	Gln	Ala	His	Gly	Leu	Thr	Pro	Glu	Gln	Val	Val	Ala	Ile	Ala
	370					375					380				
Ser	His	Asp	Gly	Gly	Lys	Gln	Ala	Leu	Glu	Thr	Val	Gln	Arg	Leu	Leu
385					390					395					400

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val Val Ala
405 410 415

Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
420 425 430

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
435 440 445

Val Ala Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val
450 455 460

Gln Ala Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln
465 470 475 480

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

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 290

<211> 530

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 290

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

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

His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly
35 40 45

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

Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala Ser Asn
65 70 75 80

Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg Leu Leu Pro Val
85 90 95

Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala Ile Ala
100 105 110

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

Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Gln Gln Val Val Ala
130 135 140

Ile Ala Ser Asn Asn Gly Gly Lys Gln Ala Leu Glu Thr Val Gln Arg
145 150 155 160

Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu Gln Val
165 170 175

Val Ala Ile Ala Ser Asn Ile Gly Gly Lys Gln Ala Leu Glu Thr Val
180 185 190

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

Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala Leu Glu
210 215 220

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
225 230 235 240

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Lys Gln Ala

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

Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr Pro Glu
465 470 475 480

Gln Val Val Ala Ile Ala Ser His Asp Gly Gly Lys Gln Ala Leu Glu
485 490 495

Thr Val Gln Arg Leu Leu Pro Val Leu Cys Gln Ala His Gly Leu Thr
500 505 510

Pro Gln Gln Val Val Ala Ile Ala Ser Asn Gly Gly Gly Arg Pro Ala
515 520 525

Leu Glu
530

<210> 291
<211> 136
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 291
Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Glu
1 5 10 15

Leu Pro Thr Gln Gly Thr Phe Ser Asn Val Ser Thr Asn Val Ser Pro
20 25 30

Ala Lys Pro Thr Thr Thr Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys
35 40 45

Ser Gly Gly Gly Gly Ser Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro
50 55 60

Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro
65 70 75 80

Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp
85 90 95

Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu
100 105 110

Ser Leu Val Ile Thr Leu Tyr Cys Asn His Arg Asn Arg Arg Arg Val
115 120 125

Cys Lys Cys Pro Arg Pro Val Val
130 135

<210> 292

<211> 157

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 292

Met Gly Thr Ser Leu Leu Cys Trp Met Ala Leu Cys Leu Leu Gly Ala
1 5 10 15

Asp His Ala Asp Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly
20 25 30

Gly Gly Gly Ser Glu Leu Pro Thr Gln Gly Thr Phe Ser Asn Val Ser
35 40 45

Thr Asn Val Ser Pro Ala Lys Pro Thr Thr Thr Ala Cys Pro Tyr Ser
50 55 60

Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Pro Ala Pro Arg Pro
65 70 75 80

Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro
85 90 95

Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu
100 105 110

Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys
115 120 125

Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Asn His Arg
130 135 140

Asn Arg Arg Arg Val Cys Lys Cys Pro Arg Pro Val Val
145 150 155

<210> 293
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 293
Cys Pro Tyr Ser Asn Pro Ser Leu Cys
1 5

<210> 294
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 294
Gly Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys
1 5 10 15

Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser
20 25 30

Gly Gly Gly Gly Ser
35

<210> 295
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 295

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

Pro Ala Lys Pro Thr Thr Thr Ala
20

<210> 296

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 296

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 297

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 297

caggtcacct tgaaggagtc tggctcctgtg ctggtgaaac ccacagagac cctcacgctg	60
acctgcaccg tctctggggtt ctactcagt aatgctagaa tgggtgtgac ctggatccgt	120
cagccccag ggaaggccct ggagtggctt gcacacattt tttcgaatga cgaaaaatcc	180
tacagtacat ctctgaagag caggctcacc atctccaagg acacttcaa aaccaggtg	240
gtccttacca tgaccaacat ggaccctgtg gacacagcca catattactg tgcacggata	300
cgagattact atgacattag tagttattat gactactggg gccaggggaac cctggtcagc	360
gtctcctca	369

<210> 298

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 298

gacatccaga tgaccagtc tccatctgcc atgtctgcat ctgtaggaga cagagtcacc	60
atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca	120
gggaaagtcc ctaagcgctt gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc ggggacagaa ttcactctca caatcagcag cctgctgcct	240
gaagattttg caacttatta ctgtctacag cttaatagtt tcccgttcac ttttggcgga	300
gggaccaagg tggagatcaa c	321

<210> 299

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 299

gaggtgcagc tggaggagtc tgggggaggc ttgggtccagc ctgggggggtc cctgagactc	60
tcctgtgtag cctctggatt cacctttagt agttattgga tgagctgggt ccgccaggct	120
ccaggggaagg ggctggagtg ggtggccagc ataaagcaag atggaagtga gaaatactat	180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcaagtgtat	240
ctgcaaatga acagcctgag agccgaggac acgggtgtgt attactgtgc gagagaagga	300
gtcaactggg gatggagact ctactggcac ttcgatctct ggggccgtgg aaccctggtc	360
actgtctcct ca	372

<210> 300

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 300

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
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atcaactgca agtccagcca gagtgtttta tacagctaca acaataagaa ctacgtagct	120
tggtaccagc agaaaccagg acaacctcct aacctactca ttttctgggc atctaccgg	180
gaatccggggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gtttactact gtcagcaata ttatagtacg	300
ctcactttcg gcggaggagac caaggtggag atcaaa	336

<210> 301

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 301

gaggtgcagc tgggtggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc	60
tcctgtgcag tctctggatt caccttcagt aaccataaca tacactgggt ccgccaggct	120
ccagggaagg ggctggagtg gatttcatac attagtcgaa gtagtagtac catatattac	180
gcagactctg tgaagggccg attcacaatc tccagagaca atgccaagaa ctcactgtat	240
ctgcaaatga acagcctgag agacgaagac acggctgtgt attactgtgc gagagatcac	300
gctcagtggg acggtatgga cgtttggggc caagggacca cggtcaccgt ctcctca	357

<210> 302

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 302

gacatccaga tgaccagtc tccatcttcc gtgtctgcat cggtaggaga cagagtcacc	60
atcacttgtc gggcgagtca ggggtattagc agctggttag cctgggtatca gcagaaacca	120
gggaaagccc ctaaggctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagat ttactctca ccatcagcag cctgcagcct	240
gaagattttg caacttacta ttgtcaacag gctttcagtt tccattcac tttcggcct	300

gggaccaaag tggatatcaa a 321

<210> 303

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 303

gaagtgcagc ttgtccagag cggagccgaa gtgaagaagc ctggcgagag cctgaagatc	60
agctgcaagg gctccggata tcgcttcaca agttactgga taggggtgggt gcgccagatg	120
cctggtaagg gactggaatg gatgggctct atatatcctg atgattccga cacacgttat	180
agcccaagct ttcagggcca ggtcacaatc agcgctgaca agagcatcag caccgcctac	240
cttcagtgggt cgtctctgaa ggccagcgac accgcaatgt actactgcgc ctctagcaca	300
gttgactacc cgggatacag ttacttcgac tactggggcc aaggtacact ggtcaccgtc	360
agcagc	366

<210> 304

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 304

gagctccaga gcgtgctgac ccagcctcct agcgcaagcg gcacccctgg acagcgtgtg	60
acaattagct gtagcggaag tcgtagcaat atcggatcaa actatgtgta ttggtatcag	120
caattgcccc gtacagcacc caaattgctc atatatagaa ataatcagag acctagcgga	180
gtgcctgata gtttttagcg tagcaaaagc ggcaccagcg catcactggc aatttcaggc	240
ctgcgtagcg aagatgaggc ggattattac tgtgagagtt gggatggttc gctgagtgct	300
gttgtgttcg gcaccggtac aaaactgacc gttctg	336

<210> 305

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 305

gaagtgcagc ttgtccagag cggagccgaa gtgaagaagc ctggcgagag cctgaagatc	60
agctgcaagg gctccggata cacctttcct tcatcatgga taggttgggt gcgccagatg	120
cctggtaagg gactggaatg gatgggcatc atataccctg atactagcca taccggttac	180
agcccaagct ttcagggcca ggtcacaatc agcgctgaca agagcatcag caccgcctac	240
cttcagtggc cgtctctgaa ggccagcgac accgcaatgt actactgtgc ccgtgcgagc	300
tatttcgatc gtggaacagg gtatagttct tgggtggatgg atgtgtgggg ccaaggtaca	360
ctggtcaccg tcagcagc	378

<210> 306

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 306

gagctcgata ttcagatgac ccagagccct agcagcctga gcgcaagcgt gggcgataga	60
gtgaccatta cctgtagggc ctcaaatcc atatacgact atttgcactg gtatcagcag	120
aaaccgggga aagcacccaa actgctgatt tacgatgctt ccaacctaca gagtggcggtt	180
ccttcacgtt ttagcggtag cggttcaggc accgatttca ccctgaccat tagcagcctt	240
cagcccgaag atttcgctac gtattattgc cagcaatcat acaccagcc gttgtttaca	300
ttcggccagg gtaccaaagt ggaaatcaaa	330

<210> 307

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 307
gaagtgcagc ttgtccagag cggagccgaa gtgaagaagc ctggcgagag cctgaagatc 60
agctgcaagg gctccggata cggattcaca agttattgga taggttgggt gcgccagatg 120
cctggtaagg gactggaatg gatgggtatc attcatcccg atgatagcga caccaaatac 180
agcccaagct ttcagggcca ggtcacaatc agcgctgaca agagcatcag caccgcctac 240
cttcagtggg cgtctctgaa ggccagcgac accgcaatgt actactgtgc ctctagctat 300
ttgcgtggct tgtggggagg ctattttgac tattggggcc aaggtaact ggtcaccgtc 360
agcagc 366

<210> 308
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 308
gagctccaga gcgtgctgac ccagcctcct agcgcaagcg gcacccctgg acagcgtgtg 60
acaattagct gtagcggatc aagctcaaac attggctcaa attatgtgaa ttggtatcag 120
caattgcccg gtacagcacc caaactgctc atttatggag attatcaacg acctagcggg 180
gtgcctgac gtttttagcgg tagcaaaagc ggcaccagcg catcactggc aatttcaggc 240
ctgcgtagcg aagatgaggc ggattattac tgtgctaccc gcgacgattc gttatctggg 300
tctgtcggtt ttggcaccgg taaaaactg accgtgctg 339

<210> 309
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 309
gaagtgcagc ttgtccagag cggagccgaa gtgaagaagc ctggcgagag cctgaagatc 60
agctgcaagg gctccggata cagttttgcc tcatactgga tcggttgggt gcgccagatg 120
cctggtaagg gactggaatg gatgggcgta atttaccctg gaactagcga gacacgttac 180

agcccaagct ttcagggcca ggtcacaatc agcgtgaca agagcatcag caccgcctac 240
cttcagtggc cgtctctgaa ggccagcgac accgcaatgt actactgcgc taaagggttg 300
agtgcgagtg caagtggata ttctttccaa tattggggcc aaggtacact ggtcaccgtc 360
agcagc 366

<210> 310
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 310
gagctcgata ttcagatgac ccagagccct agcagcctga gcgcaagcgt gggcgataga 60
gtgaccatta cctgtagggc ctcacaaagc atcgacacat atttaaactg gtatcagcag 120
aaacccggga aagcacccaa actgctgatt tattcagcta gtagcctaca cagtggcggtt 180
ccttcacgtt ttagcggtag cggttcaggc accgatttca ccctgaccat tagcagcctt 240
cagcccgaag atttcgctac gtattattgc caacaatcat acagcacaac tgcttggaca 300
ttcggccagg gtaccaaagt ggaaatcaaa 330

<210> 311
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 311
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

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

Gly Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Ser Ala Asn
65 70 75 80

Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser
85 90 95

Thr Ser Thr Val Tyr Met Glu Leu Ile Ser Leu Arg Ser Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Gly Gly Ser Ser Ser Pro Phe Ala Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Val Met Thr Gln Asn Pro Leu Ser Ser Pro Val Thr Leu Gly Gln
165 170 175

Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser Asp
180 185 190

Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Ser Pro
195 200 205

Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro Asp
210 215 220

Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser
225 230 235 240

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala Thr
245 250 255

Gln Phe Pro Leu Thr Ile Gly Gly Gly Ser Lys Val Glu Ile Lys Thr

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

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 312

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 312

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

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

Gly Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn
65 70 75 80

Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser
85 90 95

Thr Ser Thr Val Phe Met Glu Leu Ile Ser Leu Arg Ser Glu Tyr Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Gly Gly Ser Ser Ser Pro Phe Ala Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly Gln
165 170 175

Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser Asp
180 185 190

Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Ser Pro
195 200 205

Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro Asp
210 215 220

Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser
225 230 235 240

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala Thr
245 250 255

Gln Phe Pro Leu Thr Ile Gly Gly Gly Ser Lys Val Glu Ile Lys Thr
260 265 270

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
275 280 285

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
290 295 300

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
305 310 315 320

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
325 330 335

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
340 345 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
355 360 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val

370

375

380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385 390 395 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
405 410 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 313

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 313

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly
35 40 45

Ser Ile Ser Ser Tyr Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys

50

55

60

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

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys
85 90 95

Asn Gln Phe Ser Leu Lys Leu Arg Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Asp Ile Arg Thr Trp Gly Gln Gly Thr Leu
115 120 125

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser
145 150 155 160

Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys
165 170 175

Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu Ala Trp Phe Gln Gln Lys
180 185 190

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

Ser Gly Val Pro Ser Lys Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
210 215 220

Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr
225 230 235 240

Cys Gln Gln Tyr Asn Ser Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys
245 250 255

Val Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala
260 265 270

Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg
275 280 285

Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys
290 295 300

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
305 310 315 320

Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu
325 330 335

Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln
340 345 350

Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly
355 360 365

Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr
370 375 380

Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg
385 390 395 400

Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met
405 410 415

Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu
420 425 430

Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys
435 440 445

Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu
450 455 460

Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu
465 470 475 480

Pro Pro Arg

<210> 314
<211> 493
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 314
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Arg Asn Ser Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ala Asn Ile Lys Arg Asp Gly Ser Glu Lys Tyr
65 70 75 80

Tyr Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Gln Thr Gly Ser Phe Asp Tyr Trp
115 120 125

Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Val
145 150 155 160

Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly Gln Pro

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

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
385 390 395 400

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
405 410 415

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
420 425 430

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
435 440 445

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
450 455 460

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
465 470 475 480

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 315

<211> 485

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 315

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gln Val Gln Leu Arg Gly Ser Gly Pro Gly Leu
20 25 30

Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Asp Asp
35 40 45

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

Gly Leu Glu Trp Ile Gly Arg Val Tyr Ser Ser Gly Asn Ile Asn Tyr
65 70 75 80

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

Ser Arg Phe Ser Leu Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Gly Leu Asp Ala Phe Asp Ile Trp Gly Gln
115 120 125

Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Ile Val Met
145 150 155 160

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

Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser Leu Ala Trp Tyr
180 185 190

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

Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Gly Gly Ser Gly Ser Gly
210 215 220

Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala
225 230 235 240

Val Tyr Tyr Cys Gln Gln Tyr Ile Asn Trp Pro His Phe Gly Gly Gly
245 250 255

Thr Lys Val Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr
260 265 270

Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala

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

<210> 316

<211> 486

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 316

Met	Ala	Leu	Pro	Val	Thr	Ala	Leu	Leu	Leu	Pro	Leu	Ala	Leu	Leu	Leu
1				5				10					15		

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

Val	Gln	Pro	Gly	Glu	Ser	Leu	Arg	Leu	Ser	Cys	Glu	Val	Ser	Gly	Phe
		35					40					45			

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

Gly	Leu	Glu	Trp	Val	Ser	Ile	Ile	Ser	Gly	Val	Ala	Phe	Thr	Thr	Tyr
65					70					75					80

Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	His	Ser
				85					90					95	

Lys	Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn	Gly	Leu	Arg	Ala	Glu	Asp	Thr
			100					105					110		

Ala	Val	Tyr	Tyr	Cys	Val	Lys	Val	Asp	Gly	Glu	Val	Tyr	Trp	Gly	Gln
		115					120					125			

Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly
	130						135				140				

Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp	Ile	Gln	Met
145					150					155					160

Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly	Asp	Arg	Val	Thr
				165					170					175	

Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn Trp Tyr
180 185 190

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

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

Thr Asp Phe Thr Phe Ala Ile Ser Ser Leu Gln Pro Glu Asp Val Ala
225 230 235 240

Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Phe Pro Ile Thr Phe Gly Gln
245 250 255

Gly Thr Arg Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro
260 265 270

Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu
275 280 285

Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp
290 295 300

Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly
305 310 315 320

Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg
325 330 335

Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln
340 345 350

Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu
355 360 365

Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala
370 375 380

Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu

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

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 318

<211> 492
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 318

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Thr Tyr Tyr Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser His Ile Ser Ile Arg Ser Ser Thr Ile Tyr
65 70 75 80

Phe Ala Asp Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Gly Ser Gly Trp Tyr Gly Asp Tyr Phe
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro
165 170 175

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser

180					185					190					
Ser	Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Gln	Pro	Gly	Gln	Ala	Pro	Arg	Leu
		195					200					205			
Leu	Ile	Tyr	Gly	Ala	Ser	Ser	Arg	Ala	Thr	Gly	Ile	Pro	Asp	Arg	Phe
	210					215					220				
Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Arg	Leu
225					230					235					240
Glu	Pro	Glu	Asp	Phe	Ala	Ile	Tyr	Tyr	Cys	Gln	Gln	Tyr	Gly	Ser	Ser
				245					250					255	
Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Thr	Thr	Thr
			260					265						270	
Pro	Ala	Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro
		275					280					285			
Leu	Ser	Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val
	290					295					300				
His	Thr	Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro
305					310					315					320
Leu	Ala	Gly	Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val	Ile	Thr	Leu
				325					330					335	
Tyr	Cys	Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys	Gln	Pro
			340					345					350		
Phe	Met	Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser	Cys
		355					360					365			
Arg	Phe	Pro	Glu	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu	Arg	Val	Lys	Phe
	370					375					380				
Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn	Gln	Leu
385					390					395					400

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
405 410 415

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
420 425 430

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
435 440 445

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
450 455 460

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
465 470 475 480

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 319

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 319

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe
35 40 45

Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg Gln Pro Pro
50 55 60

Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys
65 70 75 80

Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr
85 90 95

Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp
100 105 110

Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr Asp Ile Ser
115 120 125

Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser Val Ser Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145 150 155 160

Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser
165 170 175

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp
180 185 190

Ile Ser Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro
195 200 205

Lys Arg Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser
210 215 220

Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser
225 230 235 240

Ser Leu Leu Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Leu Asn
245 250 255

Ser Phe Pro Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Asn Thr
260 265 270

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
275 280 285

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly

290

295

300

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
305 310 315 320

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
325 330 335

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
340 345 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
355 360 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
370 375 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385 390 395 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
405 410 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 320

<211> 490

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 320

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Thr Phe Ser Asn His Asn Ile His Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Ile Ser Tyr Ile Ser Arg Ser Ser Thr Ile Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp His Ala Gln Trp Tyr Gly Met Asp
115 120 125

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
145 150 155 160

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
165 170 175

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
180 185 190

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
195 200 205

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
210 215 220

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
225 230 235 240

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Phe Ser Phe Pro Phe
245 250 255

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Thr Thr Thr Pro Ala
260 265 270

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
275 280 285

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

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
305 310 315 320

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
325 330 335

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
340 345 350

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
355 360 365

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
370 375 380

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
385 390 395 400

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg

405

410

415

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
420 425 430

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
435 440 445

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
450 455 460

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
465 470 475 480

Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 321

<211> 500

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 321

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe
35 40 45

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

Gly Leu Glu Trp Val Ala Ser Ile Lys Gln Asp Gly Ser Glu Lys Tyr
65 70 75 80

Tyr Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala

			85					90					95			
Lys	Asn	Ser	Val	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	
			100					105					110			
Gly	Val	Tyr	Tyr	Cys	Ala	Arg	Glu	Gly	Val	Asn	Trp	Gly	Trp	Arg	Leu	
		115					120					125				
Tyr	Trp	His	Phe	Asp	Leu	Trp	Gly	Arg	Gly	Thr	Leu	Val	Thr	Val	Ser	
	130					135					140					
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	
145					150					155					160	
Gly	Gly	Gly	Gly	Ser	Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Asp	Ser	Leu	
				165					170					175		
Ala	Val	Ser	Leu	Gly	Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Gln	
			180					185					190			
Ser	Val	Leu	Tyr	Ser	Tyr	Asn	Asn	Lys	Asn	Tyr	Val	Ala	Trp	Tyr	Gln	
		195				200						205				
Gln	Lys	Pro	Gly	Gln	Pro	Pro	Asn	Leu	Leu	Ile	Phe	Trp	Ala	Ser	Thr	
	210					215					220					
Arg	Glu	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	
225					230					235					240	
Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	
				245					250					255		
Tyr	Tyr	Cys	Gln	Gln	Tyr	Tyr	Ser	Thr	Leu	Thr	Phe	Gly	Gly	Gly	Thr	
			260					265					270			
Lys	Val	Glu	Ile	Lys	Thr	Thr	Thr	Pro	Ala	Pro	Arg	Pro	Pro	Thr	Pro	
		275					280					285				
Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu	Arg	Pro	Glu	Ala	Cys	
	290					295					300					

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala
305 310 315 320

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu
325 330 335

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
340 345 350

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
355 360 365

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly
370 375 380

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
385 390 395 400

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
405 410 415

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
420 425 430

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
435 440 445

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
450 455 460

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
465 470 475 480

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
485 490 495

Leu Pro Pro Arg
500

<210> 322

<211> 492

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 322

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Ser Tyr Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser His Ser Ser Ile Ser Arg Gly Asn Ile Tyr
65 70 75 80

Phe Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Gly Ser Gly Trp Tyr Gly Asp Tyr Phe
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro
165 170 175

Gly Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser

180					185					190					
Ser	Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu
		195					200					205			
Leu	Ile	Tyr	Asp	Ala	Ser	Ser	Arg	Ala	Thr	Gly	Ile	Pro	Asp	Arg	Phe
	210					215					220				
Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Arg	Leu
225					230					235					240
Glu	Pro	Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Tyr	Gly	Ser	Ser
				245					250					255	
Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Thr	Thr	Thr
			260					265						270	
Pro	Ala	Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro
		275					280					285			
Leu	Ser	Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val
	290					295					300				
His	Thr	Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro
305					310					315					320
Leu	Ala	Gly	Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val	Ile	Thr	Leu
				325					330					335	
Tyr	Cys	Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys	Gln	Pro
			340					345					350		
Phe	Met	Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser	Cys
		355					360					365			
Arg	Phe	Pro	Glu	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu	Arg	Val	Lys	Phe
	370					375					380				
Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn	Gln	Leu
385					390					395					400

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
405 410 415

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
420 425 430

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
435 440 445

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
450 455 460

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
465 470 475 480

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 323

<211> 496

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 323

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

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

Gly Leu Glu Trp Val Ser Ala Ile Arg Gly Gly Gly Gly Ser Thr Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
85 90 95

Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Phe Ile Ser Gly Thr Trp Tyr Pro
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
165 170 175

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile
180 185 190

Gly Ser Asn Tyr Val Tyr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
195 200 205

Lys Leu Leu Ile Tyr Arg Asn Asn Gln Arg Pro Ser Gly Val Pro Asp
210 215 220

Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser
225 230 235 240

Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp
245 250 255

Asp Ser Leu Ser Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val
260 265 270

Leu Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile
275 280 285

Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala

290

295

300

Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
305 310 315 320

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu
325 330 335

Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile
340 345 350

Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp
355 360 365

Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu
370 375 380

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
385 390 395 400

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
405 410 415

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
420 425 430

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
435 440 445

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
450 455 460

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
465 470 475 480

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490 495

<210> 324

<211> 498

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 324

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Arg Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys
50 55 60

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

Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser
85 90 95

Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr
100 105 110

Ala Met Tyr Tyr Cys Ala Ser Ser Thr Val Asp Tyr Pro Gly Tyr Ser
115 120 125

Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser
165 170 175

Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser
180 185 190

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

Ala Pro Lys Leu Leu Ile Tyr Arg Asn Asn Gln Arg Pro Ser Gly Val
210 215 220

Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala
225 230 235 240

Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser
245 250 255

Trp Asp Gly Ser Leu Ser Ala Val Val Phe Gly Thr Gly Thr Lys Leu
260 265 270

Thr Val Leu Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro
275 280 285

Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro
290 295 300

Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp
305 310 315 320

Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu
325 330 335

Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu
340 345 350

Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu
355 360 365

Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys
370 375 380

Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln
385 390 395 400

Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu

405

410

415

Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly
420 425 430

Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu
435 440 445

Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly
450 455 460

Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser
465 470 475 480

Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro
485 490 495

Pro Arg

<210> 325

<211> 499

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 325

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Thr Phe Thr Asn Tyr Trp Ile Ala Trp Val Arg Gln Met Pro Gly Lys
50 55 60

Gly Leu Glu Trp Met Gly Ile Ile Tyr Pro Asp Gly Ser Asp Thr Arg

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

Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg
290 295 300

Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys
305 310 315 320

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
325 330 335

Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu
340 345 350

Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln
355 360 365

Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly
370 375 380

Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr
385 390 395 400

Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg
405 410 415

Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met
420 425 430

Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu
435 440 445

Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys
450 455 460

Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu
465 470 475 480

Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu
485 490 495

Pro Pro Arg

<210> 326
<211> 496
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 326
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Ser Phe Thr Ser Ser Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys
50 55 60

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

Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser
85 90 95

Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr
100 105 110

Ala Met Tyr Tyr Cys Ala Lys Gly Leu Ser Gln Ala Met Thr Gly Phe
115 120 125

Gly Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Glu Leu Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu

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

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
385 390 395 400

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
405 410 415

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
420 425 430

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
435 440 445

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
450 455 460

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
465 470 475 480

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490 495

<210> 327

<211> 499

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 327

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Gly Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys
50 55 60

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

Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser
85 90 95

Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr
100 105 110

Ala Met Tyr Tyr Cys Ala Ser Ser Tyr Leu Arg Gly Leu Trp Gly Gly
115 120 125

Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser
165 170 175

Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser
180 185 190

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

Ala Pro Lys Leu Leu Ile Tyr Gly Asp Tyr Gln Arg Pro Ser Gly Val
210 215 220

Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala
225 230 235 240

Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr
245 250 255

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

Leu Thr Val Leu Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala

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

Pro Pro Arg

<210> 328

<211> 500

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 328

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Thr Phe Pro Ser Ser Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys
50 55 60

Gly Leu Glu Trp Met Gly Ile Ile Tyr Pro Asp Thr Ser His Thr Arg
65 70 75 80

Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser
85 90 95

Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr
100 105 110

Ala Met Tyr Tyr Cys Ala Arg Ala Ser Tyr Phe Asp Arg Gly Thr Gly
115 120 125

Tyr Ser Ser Trp Trp Met Asp Val Trp Gly Gln Gly Thr Leu Val Thr
130 135 140

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
145 150 155 160

Gly Ser Gly Gly Gly Gly Ser Glu Leu Asp Ile Gln Met Thr Gln Ser
165 170 175

Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys
180 185 190

Arg Ala Ser Gln Ser Ile Tyr Asp Tyr Leu His Trp Tyr Gln Gln Lys
195 200 205

Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Gln
210 215 220

Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
225 230 235 240

Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr
245 250 255

Cys Gln Gln Ser Tyr Thr Thr Pro Leu Phe Thr Phe Gly Gln Gly Thr
260 265 270

Lys Val Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro
275 280 285

Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys
290 295 300

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala
305 310 315 320

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu
325 330 335

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
340 345 350

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
355 360 365

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly

370

375

380

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
385 390 395 400

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
405 410 415

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
420 425 430

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
435 440 445

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
450 455 460

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
465 470 475 480

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
485 490 495

Leu Pro Pro Arg
500

<210> 329

<211> 497

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 329

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

35					40					45					
Thr	Phe	Ser	Gln	Tyr	Ser	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys
50						55					60				
Gly	Leu	Glu	Trp	Val	Ser	Ala	Ile	Ser	Gly	Gly	Gly	Val	Ser	Thr	Tyr
65					70				75						80
Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser
				85					90					95	
Lys	Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr
			100					105					110		
Ala	Val	Tyr	Tyr	Cys	Ala	Ser	Asp	Ile	Ser	Asp	Ser	Gly	Gly	Ser	His
		115					120					125			
Trp	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
	130					135					140				
Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly
145					150					155					160
Gly	Gly	Gly	Ser	Glu	Leu	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser
			165						170					175	
Leu	Ser	Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser
			180					185					190		
Gln	Tyr	Ile	Gly	Arg	Tyr	Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Arg	Gly	Lys
		195					200					205			
Ala	Pro	Lys	Leu	Leu	Ile	His	Gly	Ala	Thr	Ser	Leu	Ala	Ser	Gly	Val
	210					215					220				
Pro	Ser	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr
225					230					235					240
Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln
				245					250					255	

Ser Tyr Ser Thr Thr Ser Pro Thr Phe Gly Gln Gly Thr Lys Val Glu
260 265 270

Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
275 280 285

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
290 295 300

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
305 310 315 320

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser
325 330 335

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
340 345 350

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
355 360 365

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu
370 375 380

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
385 390 395 400

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
405 410 415

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
420 425 430

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
435 440 445

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
450 455 460

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr

465 470 475 480
Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
 485 490 495

Arg

<210> 330
<211> 497
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 330
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
 35 40 45

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

Gly Leu Glu Trp Val Ser Thr Ile Ser Gly Thr Gly Gly Thr Thr Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
 85 90 95

Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
 100 105 110

Ala Val Tyr Tyr Cys Ala Lys Val Arg Ala Gly Ile Asp Pro Thr Ala
 115 120 125

Ser Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly

130

135

140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
145 150 155 160

Gly Ser Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly
165 170 175

Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn
180 185 190

Ile Gly Arg Asn Tyr Val Tyr Trp Tyr Gln Gln Leu Pro Gly Thr Ala
195 200 205

Pro Lys Leu Leu Ile Tyr Arg Thr Asn Gln Arg Pro Ser Gly Val Pro
210 215 220

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile
225 230 235 240

Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp
245 250 255

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

Val Leu Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
275 280 285

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
290 295 300

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
305 310 315 320

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser
325 330 335

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
340 345 350

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
355 360 365

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu
370 375 380

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
385 390 395 400

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
405 410 415

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
420 425 430

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
435 440 445

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
450 455 460

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr
465 470 475 480

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
485 490 495

Arg

<210> 331

<211> 500

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 331

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Asn Asn Phe Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

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

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
85 90 95

Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Lys Asp Arg Asp Ile Gly Leu Gly Trp Tyr
115 120 125

Ser Tyr Tyr Leu Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Gly Gly Gly Gly Ser Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser
165 170 175

Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser
180 185 190

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

Gly Thr Ala Pro Lys Pro Leu Ile Tyr Met Asn Asn Gln Arg Pro Ser
210 215 220

Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser

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

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
450 455 460

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
465 470 475 480

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
485 490 495

Leu Pro Pro Arg
500

<210> 332

<211> 496

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 332

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

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

Gly Leu Glu Trp Met Gly Glu Ile Ile Pro Ile Phe Gly Thr Ala Ser
65 70 75 80

Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser
85 90 95

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Ala Gly Trp Asp Asp Ser Trp Phe Asp
115 120 125

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
165 170 175

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn Ser Asn Ile Gly
180 185 190

Thr Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
195 200 205

Leu Leu Ile Tyr Arg Ser Ser Arg Arg Pro Ser Gly Val Pro Asp Arg
210 215 220

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
225 230 235 240

Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Gly
245 250 255

Ser Leu Ser Gly His Trp Val Phe Gly Thr Gly Thr Lys Leu Thr Val
260 265 270

Leu Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile
275 280 285

Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala
290 295 300

Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
305 310 315 320

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu

325	330	335
Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile		
340	345	350
Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp		
355	360	365
Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu		
370	375	380
Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly		
385	390	395
Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr		
405	410	415
Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys		
420	425	430
Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys		
435	440	445
Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg		
450	455	460
Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala		
465	470	475
Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg		
485	490	495

<210> 333
 <211> 496
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic construct

<400> 333
 Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu

1	5	10	15												
His	Ala	Ala	Arg	Pro	Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val
			20					25					30		
Lys	Lys	Pro	Gly	Glu	Ser	Leu	Lys	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr
		35					40					45			
Ser	Phe	Ala	Ser	Tyr	Trp	Ile	Gly	Trp	Val	Arg	Gln	Met	Pro	Gly	Lys
	50					55					60				
Gly	Leu	Glu	Trp	Met	Gly	Val	Ile	Tyr	Pro	Gly	Thr	Ser	Glu	Thr	Arg
65					70					75					80
Tyr	Ser	Pro	Ser	Phe	Gln	Gly	Gln	Val	Thr	Ile	Ser	Ala	Asp	Lys	Ser
				85					90					95	
Ile	Ser	Thr	Ala	Tyr	Leu	Gln	Trp	Ser	Ser	Leu	Lys	Ala	Ser	Asp	Thr
			100					105						110	
Ala	Met	Tyr	Tyr	Cys	Ala	Lys	Gly	Leu	Ser	Ala	Ser	Ala	Ser	Gly	Tyr
		115					120					125			
Ser	Phe	Gln	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Gly
	130					135					140				
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly
145					150					155					160
Gly	Gly	Ser	Glu	Leu	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu
				165					170					175	
Ser	Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln
			180					185					190		
Ser	Ile	Asp	Thr	Tyr	Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala
		195					200					205			
Pro	Lys	Leu	Leu	Ile	Tyr	Ser	Ala	Ser	Ser	Leu	His	Ser	Gly	Val	Pro
	210					215					220				

Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
225 230 235 240

Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser
245 250 255

Tyr Ser Thr Thr Ala Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
260 265 270

Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile
275 280 285

Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala
290 295 300

Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
305 310 315 320

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu
325 330 335

Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile
340 345 350

Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp
355 360 365

Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
370 375 380

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
385 390 395 400

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
405 410 415

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
420 425 430

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys

435

440

445

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
450 455 460

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
465 470 475 480

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490 495

<210> 334

<211> 497

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 334

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Ser Phe Thr Asp Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys
50 55 60

Gly Leu Glu Trp Met Gly Met Ile Ser Pro Gly Gly Ser Thr Thr Ile
65 70 75 80

Tyr Arg Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser
85 90 95

Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr
100 105 110

Ala Met Tyr Tyr Cys Ala Arg Glu Met Tyr Thr Gly Gly Tyr Gly Gly

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

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
 340 345 350

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
 355 360 365

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu
 370 375 380

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
 385 390 395 400

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
 405 410 415

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
 420 425 430

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
 435 440 445

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
 450 455 460

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr
 465 470 475 480

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
 485 490 495

Arg

<210> 335

<211> 193

<212> PRT

<213> Homo sapiens

<400> 335

Met Pro Glu Glu Gly Ser Gly Cys Ser Val Arg Arg Arg Pro Tyr Gly
 1 5 10 15

Cys Val Leu Arg Ala Ala Leu Val Pro Leu Val Ala Gly Leu Val Ile
20 25 30

Cys Leu Val Val Cys Ile Gln Arg Phe Ala Gln Ala Gln Gln Gln Leu
35 40 45

Pro Leu Glu Ser Leu Gly Trp Asp Val Ala Glu Leu Gln Leu Asn His
50 55 60

Thr Gly Pro Gln Gln Asp Pro Arg Leu Tyr Trp Gln Gly Gly Pro Ala
65 70 75 80

Leu Gly Arg Ser Phe Leu His Gly Pro Glu Leu Asp Lys Gly Gln Leu
85 90 95

Arg Ile His Arg Asp Gly Ile Tyr Met Val His Ile Gln Val Thr Leu
100 105 110

Ala Ile Cys Ser Ser Thr Thr Ala Ser Arg His His Pro Thr Thr Leu
115 120 125

Ala Val Gly Ile Cys Ser Pro Ala Ser Arg Ser Ile Ser Leu Leu Arg
130 135 140

Leu Ser Phe His Gln Gly Cys Thr Ile Ala Ser Gln Arg Leu Thr Pro
145 150 155 160

Leu Ala Arg Gly Asp Thr Leu Cys Thr Asn Leu Thr Gly Thr Leu Leu
165 170 175

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

Pro

<210> 336

<211> 933

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<220>

<221> modified_base

<222> (793)..(793)

<223> a, c, t, or g

<220>

<221> modified_base

<222> (797)..(797)

<223> a, c, t, or g

<400> 336

atggctctcc cggtcacggc cctgctgctg cctctggcgc tgctcctgca cgcggcgcgc	60
ccgcaggtca ccttgaagga gtctggtcct gtgctggtga aaccacaga gaccctcacg	120
ctgacctgca ccgtctctgg gttctcactc agtaatgcta gaatgggtgt gacctggatc	180
cgtcagcccc cagggaaaggc cctggagtgg cttgcacaca ttttttcgaa tgacgaaaaa	240
tcctacagta catctctgaa gagcaggctc accatctcca aggacacttc caaaaccag	300
gtggtcctta ccatgaccaa catggaccct gtggacacag ccacatatta ctgtgcacgg	360
atacagatt actatgacat tagtagttat tatgactact ggggccaggg aaccctggtc	420
agcgtctcct caggcggagg cggttctggc ggaggtggca gcggtggtgg cggaagtggg	480
ggtggcggct ccgacatcca gatgaccag tctccatctg ccatgtctgc atctgtagga	540
gacagagtca ccatcacttg tcgggcgagt caggacatta gcaattattt agcctggttt	600
cagcagaaac cagggaaagt ccctaagcgc ctgatctatg ctgcatccag tttgcaaagt	660
ggggtcccat caaggttcag cggcagtgga tcggggacag aattcactct cacaatcagc	720
agcctgctgc ctgaagattt tgcaacttat tactgtctac agcttaatag tttcccgttc	780
acttttggcg ganggancaa ggtggagatc aacactacca caccagcacc tcgaccacca	840
actccagcac caaccattgc atcacagcca ctgagcctgc gaccagaggc ctgtagacct	900
gctgcaggag gagctgtgca tacccgagga ctg	933

<210> 337

<211> 948

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 337

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atggctctcc cggtcacggc cctgctgctg cctctggcgc tgctcctgca cgcggcgcgc      60
ccggaagtgc agcttgtcca gagcggagcc gaagtgaaga agcctggcga gagcctgaag      120
atcagctgca agggctccgg atacggattc acaagttatt ggataggttg ggtgcgccag      180
atgcctggta agggactgga atggatgggt atcattcatc ccgatgatag cgacaccaaa      240
tacagcccaa gctttcaggg ccaggtcaca atcagcgctg acaagagcat cagcaccgcc      300
taccttcagt ggtcgtctct gaaggccagc gacaccgcaa tgtactactg tgcctctagc      360
tatttgcgtg gcttgtgggg aggctathtt gactattggg gccaaggtag actggtcacc      420
gtcagcagcg gcggaggcgg ttctggcggg ggtggcagcg gtggtggcgg aagtgggggt      480
ggcgggctcc agctccagag cgtgctgacc cagcctccta gcgcaagcgg cacccttgga      540
cagcgtgtga caattagctg tagcggatca agctcaaaca ttggctcaaa ttatgtgaat      600
tggtatcagc aattgcccgg tacagcacc aaactgctca tttatggaga ttatcaacga      660
cctagcggag tgcctgatcg ttttagcggg agcaaaagcg gcaccagcgc atcactggca      720
atttcaggcc tgcgtagcga agatgaggcg gattattact gtgctacccg cgacgattcg      780
ttatctgggt ctgtcgtttt tggcaccggg acaaaaactga ccgtgctgac taccacacca      840
gcacctcgac caccaactcc agcaccaacc attgcatcac agccactgag cctgcgacca      900
gaggcctgta gacctgctgc aggaggagct gtgcataccc gaggactg      948
```

<210> 338

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 338

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

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


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

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

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

Asp Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr Ser His
85 90 95

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

<210> 339

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 339

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

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

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

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

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

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

Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr
100 105 110

Met Val Thr Val Ser Ser
115

<210> 340
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 340
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 341
<211> 113
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 341

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
20 25 30

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

Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60

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

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

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

Ser

<210> 342

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 342

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

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

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

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

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Tyr
85 90 95

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

<210> 343

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 343

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

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

Phe Trp Asn Trp Phe Arg Gln Ser Pro Val Lys Gly Leu Glu Trp Ile
35 40 45

Gly His Val Tyr Asp Ile Gly Asn Thr Lys Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Gly Glu Gly Ala Leu Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr
100 105 110

Met Val Thr Val Ser Ser
115

<210> 344
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 344
Asp Ile Gln Met Thr Gln Ser Pro Ser Ile Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 345
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 345

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

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

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

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

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

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

Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Leu Trp Gly Gln Gly Thr
100 105 110

Met Val Thr Val Ser Ser
115

<210> 346

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 346

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

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

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

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

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

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

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
100 105

<210> 347

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 347

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

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

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

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

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

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

Ala Arg Asp Glu Val Gly Thr Phe Gly Ala Phe Asp Phe Trp Gly Gln
100 105 110

Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 348

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 348

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

Asp Ser Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asp Asn Tyr
20 25 30

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

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

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

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

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

<210> 349

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 349

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

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

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

Trp Ile Gly Tyr Met Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 350

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 350

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

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

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

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

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

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

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

<210> 351

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 351

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

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

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

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

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

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

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

Leu Val Ala Val Ser Ser
115

<210> 352
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 352
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

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

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

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

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

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

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

<210> 353
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 353
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

Ala Arg Asp Arg Gly Val Thr Met Ile Val Asp Gly Met Asp Asp Trp
100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 354

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 354

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

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

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

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

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

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

Thr Phe Gly Gln Gly Thr Arg Leu Asp Ile Asn
100 105

<210> 355

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 355

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30

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

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

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

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

Ala Arg Asp Glu Val Gly Phe Val Gly Ala Phe Asp Ile Trp Gly Gln
100 105 110

Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 356
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 356
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 357
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 357
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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

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

Trp Ile Gly Tyr Met Tyr Tyr Ser Gly Ile Thr Tyr His Asn Pro Ser
50 55 60

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 358

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 358

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

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

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

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

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

Asp Asp Phe Ala Ala Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Arg
85 90 95

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

<210> 359

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 359

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

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

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

Trp Ile Gly Tyr Met Tyr Tyr Ser Gly Ile Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 360
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 360
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 361
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 361
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

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

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

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

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

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

Ala Arg Asp Glu Val Gly Thr Phe Gly Ala Phe Asp Phe Trp Gly Gln
100 105 110

Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 362

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 362

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

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

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

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

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

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

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

Lys

<210> 363

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 363

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

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

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

Gly Arg Ile Lys Ser Lys Thr Gly Gly Gly Thr Thr Asp Tyr Ala Ala
50 55 60

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

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

Tyr Cys Thr Ser Leu Ile Val Gly Ala Ile Ser Leu Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 364
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 364
Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 365
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 365
Gln Val Gln Leu Arg Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

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

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

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

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

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

Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr
100 105 110

Met Val Ala Val Ser Ser
115

<210> 366

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 366

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

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

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

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

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

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

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

<210> 367

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 367

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser Ser Ile Ser Thr Ser Ser Asn Tyr Ile His Tyr Ala Asp Ser Leu
50 55 60

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

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

Val Arg Asp Lys Gly Thr Thr Leu Thr Asn Trp Tyr Phe Asp Leu Trp
100 105 110

Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 368
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 368
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

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

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

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

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

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

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

<210> 369
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 369
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Gly Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

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

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

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

Ala Arg Asp Gly Tyr Ser Gly Ser Ser Asp Ala Phe Asp Ile Trp Gly
100 105 110

Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 370

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 370

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

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

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

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

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Cys
85 90 95

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

<210> 371

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 371

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

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

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

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

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

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

Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr
100 105 110

Leu Val Ala Val Ser Leu
115

<210> 372

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 372

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

Asp Arg Ile Ile Phe Thr Cys Gln Ala Ser Gln Asp Ile Asn Asn Tyr
20 25 30

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp His Leu Pro Ile
85 90 95

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

<210> 373

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 373

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

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

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

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

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

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

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

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Thr
115 120

<210> 374

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 374

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

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

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

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

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

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

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

<210> 375

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 375

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

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

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

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

Gln Asp Arg Val Thr Met Ala Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

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

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

<210> 376

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 376

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

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

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

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

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

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

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

<210> 377

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 377

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

Ser Val Lys Val Ser Cys Lys Val Ser Gly Phe Thr Phe Thr Ser His
20 25 30

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

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

Gln Asp Arg Val Thr Met Ala Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Val Lys Asp Arg Lys Arg Glu Tyr Tyr Tyr Asn Phe Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 378

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 378

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 Ser Gln Asp Ile Ser Asn Tyr
20 25 30

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

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

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

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

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

<210> 379

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 379

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

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

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

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

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

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

Ala Lys Glu Lys Asp Trp Gly Arg Gly Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 380

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 380

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

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

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

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

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

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

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

<210> 381

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 381

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

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

Ser Ser Ile Ser Ser Ser Thr Ile Tyr Ile Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Arg Asp Ile Gly Trp Glu Val Phe Thr Leu Gly Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 382
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 382
Tyr Tyr Tyr Trp Thr
1 5

<210> 383
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 383
Gly Gly Ser Ile Ser Tyr Tyr
1 5

<210> 384
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 384

Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr
1 5 10

<210> 385

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 385

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

<210> 386

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 386

Tyr Tyr Ser Gly Ser
1 5

<210> 387

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 387

Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe
1 5 10

<210> 388

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 388

Ser Asn Tyr Met Thr
1 5

<210> 389

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 389

Gly Phe Thr Val Ser Ser Asn
1 5

<210> 390

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 390

Gly Phe Thr Val Ser Ser Asn Tyr Met Thr
1 5 10

<210> 391

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 391

Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 392

<211> 5

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 392
Tyr Ser Gly Gly Ser
1 5

<210> 393
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 393
Asn Trp Gly Asp Tyr Trp
1 5

<210> 394
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 394
Tyr Tyr Phe Trp Asn
1 5

<210> 395
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 395
Gly Gly Ser Ile Asp Tyr Tyr
1 5

<210> 396
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 396
Gly Gly Ser Ile Asp Tyr Tyr Phe Trp Asn
1 5 10

<210> 397
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 397
His Val Tyr Asp Ile Gly Asn Thr Lys Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 398
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 398
Tyr Asp Ile Gly Asn
1 5

<210> 399
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 399
Gly Glu Gly Ala Leu Asp Ala Phe Asp Ile
1 5 10

<210> 400
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 400
Tyr Tyr Tyr Trp Thr
1 5

<210> 401
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 401
Gly Gly Ser Ile Ser Tyr Tyr
1 5

<210> 402
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 402
Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr
1 5 10

<210> 403
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 403

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

<210> 404

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 404

Ile Tyr Ser Gly Thr
1 5

<210> 405

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 405

Ala Glu Gly Ser Leu Asp Ala Phe Asp Leu
1 5 10

<210> 406

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 406

Asp Tyr Gly Ile His
1 5

<210> 407

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 407

Gly Phe Thr Phe Ser Asp Tyr
1 5

<210> 408

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 408

Gly Phe Thr Phe Ser Asp Tyr Gly Ile His
1 5 10

<210> 409

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 409

Val Ile Trp Tyr Asp Gly Ser Ile Lys Lys Tyr Ser Asp Ser Val Lys
1 5 10 15

Gly

<210> 410

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 410

Trp Tyr Asp Gly Ser Ile
1 5

<210> 411

<211> 11

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 411

Asp Glu Val Gly Thr Phe Gly Ala Phe Asp Phe
1 5 10

<210> 412

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 412

Ser Asp Gly Tyr Tyr Trp Ser
1 5

<210> 413

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 413

Gly Gly Ser Ile Ser Ser Asp Gly Tyr
1 5

<210> 414

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 414

Gly Gly Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser
1 5 10

<210> 415
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 415

Tyr	Met	Tyr	Tyr	Ser	Gly	Ser	Thr	Tyr	Tyr	Asn	Pro	Ser	Leu	Lys	Ser
1				5				10					15		

<210> 416
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 416

Tyr	Tyr	Ser	Gly	Ser
1				5

<210> 417
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 417

Asp	Phe	Gly	Trp	Tyr	Phe	Asp	Leu
1				5			

<210> 418
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 418

Ser	Asp	Gly	Tyr	Tyr	Trp	Ser
1				5		

<210> 419
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 419
Gly Gly Ser Val Ser Ser Asp Gly Tyr
1 5

<210> 420
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 420
Gly Gly Ser Val Ser Ser Asp Gly Tyr Tyr Trp Ser
1 5 10

<210> 421
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 421
Tyr Ile Tyr Tyr Arg Arg Ile Thr Asp Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 422
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 422

Tyr Tyr Arg Arg Ile
1 5

<210> 423
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 423
Asp Phe Gly Trp Tyr Phe Asp Leu
1 5

<210> 424
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 424
Gly Tyr Tyr Leu His
1 5

<210> 425
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 425
Gly Tyr Thr Phe Thr Gly Tyr
1 5

<210> 426
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 426

Gly Tyr Thr Phe Thr Gly Tyr Tyr Leu His
1 5 10

<210> 427

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 427

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

Gly

<210> 428

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 428

Asn Pro Asn Ser Gly Gly
1 5

<210> 429

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 429

Asp Arg Gly Val Thr Met Ile Val Asp Gly Met Asp Asp
1 5 10

<210> 430

<211> 5

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 430
Asp Tyr Gly Met His
1 5

<210> 431
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 431
Gly Phe Thr Phe Ser Asp Tyr
1 5

<210> 432
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 432
Gly Phe Thr Phe Ser Asp Tyr Gly Met His
1 5 10

<210> 433
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 433
Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 434
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 434
Trp Tyr Asp Gly Ser Asn
1 5

<210> 435
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 435
Asp Glu Val Gly Phe Val Gly Ala Phe Asp Ile
1 5 10

<210> 436
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 436
Ser Asp Gly Tyr Tyr Trp Ser
1 5

<210> 437
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 437

Gly Gly Ser Ile Ser Ser Asp Gly Tyr
1 5

<210> 438

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 438

Gly Gly Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser
1 5 10

<210> 439

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 439

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

<210> 440

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 440

Tyr Tyr Ser Gly Ile
1 5

<210> 441

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 441

Asp Phe Gly Trp Tyr Phe Asp Leu
1 5

<210> 442

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 442

Ser Asp Ala Tyr Tyr Trp Ser
1 5

<210> 443

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 443

Gly Gly Ser Ile Ser Ser Asp Ala Tyr
1 5

<210> 444

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 444

Gly Gly Ser Ile Ser Ser Asp Ala Tyr Tyr Trp Ser
1 5 10

<210> 445

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 445

Tyr	Met	Tyr	Tyr	Ser	Gly	Ile	Thr	Tyr	Tyr	Asn	Pro	Ser	Leu	Lys	Ser
1				5				10					15		

<210> 446

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 446

Tyr	Tyr	Ser	Gly	Ile
1				5

<210> 447

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 447

Asp	Phe	Gly	Trp	Tyr	Phe	Asp	Leu
1				5			

<210> 448

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 448

Asp	Tyr	Gly	Ile	His
1				5

<210> 449

<211> 7

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 449

Gly Phe Thr Phe Ser Asp Tyr
1 5

<210> 450

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 450

Gly Phe Thr Phe Ser Asp Tyr Gly Ile His
1 5 10

<210> 451

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 451

Val Ile Trp Tyr Asp Gly Ser Ile Lys Lys Tyr Ser Asp Ser Val Lys
1 5 10 15

Gly

<210> 452

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 452

Trp Tyr Asp Gly Ser Ile
1 5

<210> 453
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 453
Asp Glu Val Gly Thr Phe Gly Ala Phe Asp Phe
1 5 10

<210> 454
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 454
Asn Ala Trp Met Ser
1 5

<210> 455
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 455
Gly Phe Thr Phe Ser Asn Ala
1 5

<210> 456
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 456

Gly Phe Thr Phe Ser Asn Ala Trp Met Ser
1 5 10

<210> 457

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 457

Arg Ile Lys Ser Lys Thr Gly Gly Gly Thr Thr Asp Tyr Ala Ala Pro
1 5 10 15

Val Lys Gly

<210> 458

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 458

Lys Ser Lys Thr Gly Gly Gly Thr
1 5

<210> 459

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 459

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

<210> 460

<211> 5

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 460

Tyr Tyr Phe Trp Thr
1 5

<210> 461

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 461

Gly Gly Ser Ile Ser Tyr Tyr
1 5

<210> 462

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 462

Gly Gly Ser Ile Ser Tyr Tyr Phe Trp Thr
1 5 10

<210> 463

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 463

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

<210> 464
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 464
Tyr Tyr Ser Gly Asn
1 5

<210> 465
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 465
Ala Glu Gly Ser Leu Asp Ala Phe Asp Ile
1 5 10

<210> 466
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 466
Ser Tyr Ser Met Asn
1 5

<210> 467
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 467
Gly Phe Thr Phe Ser Ser Tyr
1 5

<210> 468
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 468
Gly Phe Thr Phe Ser Ser Tyr Ser Met Asn
1 5 10

<210> 469
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 469
Ser Ile Ser Thr Ser Ser Asn Tyr Ile His Tyr Ala Asp Ser Leu Gln
1 5 10 15

Gly

<210> 470
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 470
Ser Thr Ser Ser Asn Tyr
1 5

<210> 471
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 471

Asp Lys Gly Thr Thr Leu Thr Asn Trp Tyr Phe Asp Leu
1 5 10

<210> 472

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 472

Ser Tyr Gly Met His
1 5

<210> 473

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 473

Gly Phe Thr Phe Ser Ser Tyr
1 5

<210> 474

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 474

Gly Phe Thr Phe Ser Ser Tyr Gly Met His
1 5 10

<210> 475

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 475

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

Gly

<210> 476

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 476

Trp	Tyr	Asp	Gly	Ser	Asn
1				5	

<210> 477

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 477

Asp	Gly	Tyr	Ser	Gly	Ser	Ser	Asp	Ala	Phe	Asp	Ile
1				5				10			

<210> 478

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 478

Tyr	Tyr	Tyr	Trp	Ser
1				5

<210> 479

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 479

Gly Gly Ser Ile Ser Tyr Tyr
1 5

<210> 480

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 480

Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Ser
1 5 10

<210> 481

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 481

Asn Ile Asn Tyr Met Gly Asn Thr Ile Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 482

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 482

Asn Tyr Met Gly Asn
1 5

<210> 483
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 483
Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe
1 5 10

<210> 484
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 484
Gly Tyr Tyr Ile Tyr
1 5

<210> 485
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 485
Gly Tyr Ile Phe Thr Gly Tyr
1 5

<210> 486
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 486

Gly Tyr Ile Phe Thr Gly Tyr Tyr Ile Tyr
1 5 10

<210> 487

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 487

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

Gly

<210> 488

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 488

Asn Pro Ser Ser Gly Gly
1 5

<210> 489

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 489

Asp Arg Lys Arg Glu Tyr Tyr Tyr Asn Phe Gly Met Asp Val
1 5 10

<210> 490

<211> 5

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 490
Ser His Tyr Ile Tyr
1 5

<210> 491
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 491
Gly Tyr Thr Phe Thr Ser His
1 5

<210> 492
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 492
Gly Tyr Thr Phe Thr Ser His Tyr Ile Tyr
1 5 10

<210> 493
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 493
Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 494

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 494

Asn Pro Asn Ser Gly Gly
1 5

<210> 495

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 495

Asp Arg Lys Arg Glu Tyr Tyr Tyr Asn Phe Gly Met Asp Val
1 5 10

<210> 496

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 496

Ser His Tyr Ile Tyr
1 5

<210> 497

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 497

Gly Phe Thr Phe Thr Ser His
1 5

<210> 498

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 498

Gly Phe Thr Phe Thr Ser His Tyr Ile Tyr
1 5 10

<210> 499

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 499

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

Asp

<210> 500

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 500

Asn Pro Asn Ser Gly Gly
1 5

<210> 501

<211> 14

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 501

Asp	Arg	Lys	Arg	Glu	Tyr	Tyr	Tyr	Asn	Phe	Gly	Met	Asp	Val
1				5					10				

<210> 502

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 502

Ile	Tyr	Ala	Ile	His
1			5	

<210> 503

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 503

Gly	Phe	Thr	Leu	Ser	Ile	Tyr
1				5		

<210> 504

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 504

Gly	Phe	Thr	Leu	Ser	Ile	Tyr	Ala	Ile	His
1				5				10	

<210> 505
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 505
Ser Phe Gly Gly Arg Gly Ser Ser Thr Tyr Phe Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 506
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 506
Gly Gly Arg Gly Ser Ser
1 5

<210> 507
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 507
Glu Lys Asp Trp Gly Arg Gly Phe Asp Tyr
1 5 10

<210> 508
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 508

Asn Tyr Ser Met Asn
1 5

<210> 509

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 509

Gly Phe Thr Phe Ser Asn Tyr
1 5

<210> 510

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 510

Gly Phe Thr Phe Ser Asn Tyr Ser Met Asn
1 5 10

<210> 511

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 511

Ser Ile Ser Ser Ser Thr Ile Tyr Ile Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 512

<211> 6

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 512
Ser Ser Ser Thr Ile Tyr
1 5

<210> 513
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 513
Asp Ile Gly Trp Glu Val Phe Thr Leu Gly Phe Asp Tyr
1 5 10

<210> 514
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 514
Arg Ala Ser Gln Ser Ile Ser Thr Trp Leu Ala
1 5 10

<210> 515
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 515
Lys Ala Ser Ser Leu Glu Ser
1 5

<210> 516
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 516
Gln Gln Tyr Lys Ser Tyr Ser His Thr
1 5

<210> 517
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 517
Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala
1 5 10

<210> 518
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 518
Lys Ala Ser Ser Leu Glu Ser
1 5

<210> 519
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 519
Gln Gln Tyr Lys Ser Phe Ser Leu Thr
1 5

<210> 520

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 520

Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala
1 5 10

<210> 521

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 521

Lys Ala Ser Thr Leu Glu Ser
1 5

<210> 522

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 522

Gln Gln Tyr Asn Ser Tyr Ser Tyr Thr
1 5

<210> 523

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 523

Arg Ala Ser Gln Ser Val Ser Ser Trp Leu Ala
1 5 10

<210> 524
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 524
Lys Ala Ser Ser Leu Glu Ser
1 5

<210> 525
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 525
Gln Gln Tyr Asn Thr Tyr Ser His Thr
1 5

<210> 526
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 526
Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 527
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 527

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 528

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 528

Leu Gln Asp Tyr Asn Tyr Pro Phe Thr
1 5

<210> 529

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 529

Arg Ala Ser Gln Asp Ile Asp Asn Tyr Leu Ala
1 5 10

<210> 530

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 530

Ala Ala Ser Ala Leu Gln Ser
1 5

<210> 531

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 531

Gln Asn Tyr Asn Ser Gly Pro Arg Thr
1 5

<210> 532

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 532

Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Thr
1 5 10

<210> 533

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 533

Ala Ala Ser Ala Leu Gln Ser
1 5

<210> 534

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 534

Gln Asn Tyr Asn Ser Ala Pro Arg Thr
1 5

<210> 535

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 535

Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser	Asn	Gly	Tyr	Asn	Tyr	Leu	Asp
1				5					10					15	

<210> 536

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 536

Leu	Gly	Ser	Asn	Arg	Ala	Ser
1			5			

<210> 537

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 537

Met	Gln	Thr	Leu	Gln	Thr	Pro	Phe	Thr
1				5				

<210> 538

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 538

Arg	Ala	Ser	Gln	Gly	Ile	Asn	Ser	His	Leu	Ala
1				5					10	

<210> 539

<211> 7

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 539
Tyr Ala Ser Thr Leu Pro Ser
1 5

<210> 540
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 540
Gln Gln Leu Asn His Tyr Pro Ile Thr
1 5

<210> 541
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 541
Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu Ala
1 5 10

<210> 542
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 542
Ala Ala Ser Thr Leu His Ser
1 5

<210> 543
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 543
Gln Lys Tyr Asn Ser Ala Pro Arg Thr
1 5

<210> 544
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 544
Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Ala
1 5 10

<210> 545
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 545
Ala Ala Ser Thr Leu His Ser
1 5

<210> 546
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 546
Gln Lys Tyr Asn Ser Ala Pro Arg Thr
1 5

<210> 547
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 547
Arg Ala Ser Gln Asp Ile Ser Ser Phe Leu Ala
1 5 10

<210> 548
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 548
Val Ala Ser Thr Leu Gln Ser
1 5

<210> 549
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 549
Gln Gln Leu His Val Tyr Pro Ile Thr
1 5

<210> 550
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 550

Arg Ser Ser Gln Ser Leu Leu Asp Ser Asp Asp Gly Asn Thr Tyr Leu
1 5 10 15

Asp

<210> 551
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 551
Thr Leu Ser Tyr Arg Ala Ser
1 5

<210> 552
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 552
Met Gln Arg Ile Glu Phe Pro Phe Thr
1 5

<210> 553
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 553
Arg Ala Ser Gln Thr Ile Ser Thr Trp Leu Ala
1 5 10

<210> 554
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 554

Lys Ala Ser Asn Leu Glu Ser
1 5

<210> 555

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 555

Gln Gln Tyr Gln Thr Phe Ser His Thr
1 5

<210> 556

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 556

Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu Ala
1 5 10

<210> 557

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 557

Ala Ala Ser Thr Leu Gln Ser
1 5

<210> 558

<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 558
Gln Lys Tyr Asn Ser Ala Pro Leu Thr
1 5

<210> 559
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 559
Arg Ser Ser Gln Thr Leu Val His Ser Asn Gly Tyr Asn Tyr Leu Asn
1 5 10 15

<210> 560
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 560
Leu Gly Ser Asn Arg Ala Ser
1 5

<210> 561
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 561
Met Gln Ala Ile Gln Thr Pro Tyr Thr
1 5

<210> 562
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 562
Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala
1 5 10

<210> 563
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 563
Lys Ala Ser Asn Leu Glu Ser
1 5

<210> 564
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 564
Gln Gln Tyr Asn Ser Tyr Ser Cys Thr
1 5

<210> 565
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 565
Gln Ala Ser Gln Asp Ile Asn Asn Tyr Leu His
1 5 10

<210> 566
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 566
Asp Ala Ser Asp Trp Glu Thr
1 5

<210> 567
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 567
Gln Gln Tyr Asp His Leu Pro Ile Thr
1 5

<210> 568
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 568
Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu His
1 5 10

<210> 569
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 569

Asp Ala Ser Asp Leu Glu Thr
1 5

<210> 570

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 570

Gln Gln Tyr Asp His Leu Pro Ile Thr
1 5

<210> 571

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 571

Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu His
1 5 10

<210> 572

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 572

Asp Ala Ser Asp Leu Glu Thr
1 5

<210> 573

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 573

Gln Gln Tyr Asp His Leu Pro Ile Thr
1 5

<210> 574

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 574

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

<210> 575

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 575

Asp Ala Ser Asn Leu Glu Thr
1 5

<210> 576

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 576

Gln Gln Tyr Asp Asn Leu Pro Tyr Thr
1 5

<210> 577

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 577

Arg	Ser	Ser	Gln	Ser	Leu	Leu	Tyr	Ser	Asn	Gly	Tyr	Asn	Tyr	Leu	Asp
1				5					10					15	

<210> 578

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 578

Leu	Asn	Ser	Asn	Arg	Ala	Ser
1				5		

<210> 579

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 579

Met	Gln	Ala	Leu	Gln	Thr	Pro	Leu	Thr
1				5				

<210> 580

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 580

Met	Ala	Leu	Pro	Val	Thr	Ala	Leu	Leu	Leu	Pro	Leu	Ala	Leu	Leu	Leu
1				5						10				15	

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

Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly
35 40 45

Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys
50 55 60

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

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys
85 90 95

Asn Leu Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe
115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Trp Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr
195 200 205

Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Glu Phe Ile Leu Thr Ile Asn Ser Leu Gln Pro Asp
225 230 235 240

Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr Ser His Thr
245 250 255

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 581

<211> 484

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 581

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

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

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Asn Trp Gly Asp Tyr Trp Gly Gln Gly Thr
115 120 125

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln
145 150 155 160

Ser Pro Ser Thr Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr
165 170 175

Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala Trp Tyr Gln Gln
180 185 190

Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr Lys Ala Ser Ser Leu
195 200 205

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

Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr
225 230 235 240

Tyr Cys Gln Gln Tyr Lys Ser Phe Ser Leu Thr Phe Gly Gln Gly Thr
245 250 255

Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro
260 265 270

Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys
275 280 285

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala
290 295 300

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu
305 310 315 320

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
325 330 335

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
340 345 350

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly
355 360 365

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
370 375 380

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
385 390 395 400

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
405 410 415

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
420 425 430

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
435 440 445

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
450 455 460

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
465 470 475 480

Leu Pro Pro Arg

<210> 582

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 582

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Ser Gly Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly
35 40 45

Ser Ile Asp Tyr Tyr Phe Trp Asn Trp Phe Arg Gln Ser Pro Val Lys
50 55 60

Gly Leu Glu Trp Ile Gly His Val Tyr Asp Ile Gly Asn Thr Lys Tyr
65 70 75 80

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

Asn Gln Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Gly Glu Gly Ala Leu Asp Ala Phe Asp Ile
115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr
195 200 205

Lys Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
225 230 235 240

Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Tyr Thr
245 250 255

Phe Gly His Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 583

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 583

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Ser Glu Thr Leu Ser Leu Asn Cys Thr Val Ser Gly Gly
35 40 45

Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys
50 55 60

Gly Leu Glu Trp Ile Gly His Val Ile Tyr Ser Gly Thr Thr Asn Tyr
65 70 75 80

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys
85 90 95

Asn Gln Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Val Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Leu
115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ile Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Val Ser Ser Trp Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr
195 200 205

Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Thr
210 215 220

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser Asp
225 230 235 240

Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser His Thr
245 250 255

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 584

<211> 491

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 584

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asp Tyr Gly Ile His Trp Val Arg Gln Ala Pro Gly Met
50 55 60

Gly Gln Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Ile Lys Lys
65 70 75 80

Tyr Ser Asp Ser Val Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser
85 90 95

Glu Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Gly Glu Asp Thr
100 105 110

Ala Ile Tyr Tyr Cys Ala Arg Asp Glu Val Gly Thr Phe Gly Ala Phe
115 120 125

Asp Phe Trp Gly Gln Gly Thr Lys Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Ala Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
165 170 175

Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn
180 185 190

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

Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
210 215 220

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
225 230 235 240

Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro
245 250 255

Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Thr Thr Thr Pro
260 265 270

Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu
275 280 285

Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His
290 295 300

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
305 310 315 320

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
325 330 335

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
340 345 350

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
355 360 365

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser
370 375 380

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
385 390 395 400

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
405 410 415

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
420 425 430

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
435 440 445

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
450 455 460

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
465 470 475 480

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 585

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 585

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Asn Pro
50 55 60

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

Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr
85 90 95

Ser Lys Asn Gln Phe Ser Leu Lys Leu Arg Ser Val Thr Ala Ala Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Thr Arg Asp Phe Gly Trp Tyr Phe Asp Leu
115 120 125

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
165 170 175

Ser Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asp Asn Tyr Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Thr Gly Lys Val Pro Lys Val Leu Ile Tyr
195 200 205

Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
225 230 235 240

Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Gly Pro Arg Thr
245 250 255

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 586

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 586

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu
1 5 10 15

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

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

Ser Val Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro
50 55 60

Gly Lys Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Tyr Arg Arg Ile Thr
65 70 75 80

Asp Tyr Asn Pro Ser Leu Lys Ser Arg Val Asn Ile Ser Leu Asp Thr
85 90 95

Ser Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Phe Gly Trp Tyr Phe Asp Leu
115 120 125

Trp Gly Arg Gly Thr Leu Val Ala Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu
180 185 190

Thr Trp Tyr Gln Gln Lys Pro Gly Arg Val Pro Glu Val Leu Ile Tyr
195 200 205

Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
225 230 235 240

Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Ala Pro Arg Thr
245 250 255

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 587

<211> 498

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic construct

<400> 587

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr
35 40 45

Thr Phe Thr Gly Tyr Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln
50 55 60

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

Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser
85 90 95

Ile Thr Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ile Asp Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Arg Gly Val Thr Met Ile Val Asp
115 120 125

Gly Met Asp Asp Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val
165 170 175

Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
180 185 190

Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro
195 200 205

Gly Gln Ser Pro Gln Val Leu Ile Leu Leu Gly Ser Asn Arg Ala Ser
210 215 220

Gly Val Pro Asp Arg Val Ser Ala Ser Gly Ser Gly Thr Asp Phe Thr
225 230 235 240

Leu Lys Ile Ser Arg Met Gln Ala Glu Asp Val Gly Ile Tyr Tyr Cys
245 250 255

Met Gln Thr Leu Gln Thr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu
260 265 270

Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro
275 280 285

Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro
290 295 300

Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp
305 310 315 320

Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu
325 330 335

Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu
340 345 350

Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu
355 360 365

Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys
370 375 380

Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln
385 390 395 400

Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu
405 410 415

Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly
420 425 430

Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu
435 440 445

Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly
450 455 460

Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser
465 470 475 480

Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro
485 490 495

Pro Arg

<210> 588

<211> 491

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 588

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Glu Leu Val Glu Ser Gly Gly Gly Met
20 25 30

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Met
50 55 60

Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
85 90 95

Lys Asn Thr Val Phe Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Glu Val Gly Phe Val Gly Ala Phe
115 120 125

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val
165 170 175

Gly Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Gly Ile Asn Ser
180 185 190

His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
195 200 205

Ile Tyr Tyr Ala Ser Thr Leu Pro Ser Gly Val Pro Ser Arg Phe Ser
210 215 220

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Thr Ser Leu Gln
225 230 235 240

Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn His Tyr Pro
245 250 255

Ile Thr Phe Gly Gln Gly Thr Arg Leu Asp Ile Asn Thr Thr Thr Pro
260 265 270

Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu
275 280 285

Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His
290 295 300

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
305 310 315 320

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
325 330 335

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
340 345 350

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
355 360 365

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser
370 375 380

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
385 390 395 400

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
405 410 415

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
420 425 430

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
435 440 445

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
450 455 460

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
465 470 475 480

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 589

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 589

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro
50 55 60

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

Tyr His Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr
85 90 95

Ser Lys Asn Gln Phe Ser Leu Arg Leu Ser Ser Val Thr Ala Ala Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Phe Gly Trp Tyr Phe Asp Leu
115 120 125

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile Tyr
195 200 205

Ala Ala Ser Thr Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
225 230 235 240

Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Arg Thr
245 250 255

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 590

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 590

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu
1 5 10 15

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

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

Ser Ile Ser Ser Asp Ala Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro
50 55 60

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

Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr
85 90 95

Ser Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Phe Gly Trp Tyr Phe Asp Leu
115 120 125

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile Tyr
195 200 205

Ala Ala Ser Thr Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
225 230 235 240

Asp Phe Ala Ala Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Arg Thr
245 250 255

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 591

<211> 491

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 591

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asp Tyr Gly Ile His Trp Val Arg Gln Ala Pro Gly Met
50 55 60

Gly Gln Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Ile Lys Lys
65 70 75 80

Tyr Ser Asp Ser Val Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser
85 90 95

Glu Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Gly Glu Asp Thr
100 105 110

Ala Ile Tyr Tyr Cys Ala Arg Asp Glu Val Gly Thr Phe Gly Ala Phe
115 120 125

Asp Phe Trp Gly Gln Gly Thr Lys Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val
165 170 175

Gly Asp Arg Val Ser Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Ser
180 185 190

Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Val Leu Leu
195 200 205

Ile Tyr Val Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
210 215 220

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Ser Ser Leu Gln
225 230 235 240

Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu His Val Tyr Pro
245 250 255

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Arg Thr Thr Thr Pro
260 265 270

Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu
275 280 285

Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His
290 295 300

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
305 310 315 320

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
325 330 335

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
340 345 350

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
355 360 365

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser
370 375 380

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
385 390 395 400

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
405 410 415

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
420 425 430

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
435 440 445

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
450 455 460

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
465 470 475 480

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 592

<211> 499

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 592

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asn Ala Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Gly Arg Ile Lys Ser Lys Thr Gly Gly Gly Thr
65 70 75 80

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

Asp Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu
100 105 110

Asp Thr Ala Val Tyr Tyr Cys Thr Ser Leu Ile Val Gly Ala Ile Ser
115 120 125

Leu Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val
165 170 175

Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
180 185 190

Leu Asp Ser Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys
195 200 205

Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala
210 215 220

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
225 230 235 240

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr
245 250 255

Cys Met Gln Arg Ile Glu Phe Pro Phe Thr Phe Gly Pro Gly Thr Lys
260 265 270

Val Asp Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala
275 280 285

Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg
290 295 300

Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys
305 310 315 320

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
325 330 335

Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu
340 345 350

Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln
355 360 365

Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly
370 375 380

Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr
385 390 395 400

Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg
405 410 415

Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met
420 425 430

Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu
435 440 445

Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys
450 455 460

Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu
465 470 475 480

Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu
485 490 495

Pro Pro Arg

<210> 593

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 593

Met	Ala	Leu	Pro	Val	Thr	Ala	Leu	Leu	Leu	Pro	Leu	Ala	Leu	Leu	Leu
1				5				10					15		

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

Val	Lys	Pro	Ser	Glu	Thr	Leu	Ser	Leu	Thr	Cys	Thr	Ile	Ser	Gly	Gly
		35					40					45			

Ser	Ile	Ser	Tyr	Tyr	Phe	Trp	Thr	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Arg
	50					55					60				

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

Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Ile	Asp	Thr	Ser	Lys
				85					90					95	

Asn	Gln	Phe	Ser	Leu	Lys	Leu	Thr	Ser	Val	Thr	Val	Ala	Asp	Thr	Ala
			100					105					110		

Val	Tyr	Tyr	Cys	Val	Arg	Ala	Glu	Gly	Ser	Leu	Asp	Ala	Phe	Asp	Ile
		115					120					125			

Trp	Gly	Gln	Gly	Thr	Met	Val	Ala	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser
	130					135					140				

Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp
145					150					155					160

Ile Gln Met Thr Gln Ser Pro Ser Ala Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Ala Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Thr Trp Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr
195 200 205

Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro Asp
225 230 235 240

Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Gln Thr Phe Ser His Thr
245 250 255

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 594

<211> 493

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 594

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu
1 5 10 15

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

Val Lys Pro Gly Gly Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe
35 40 45

Thr Phe Ser Ser Tyr Ser Met Asn Trp Val Arg Gln Phe Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Ser Ile Ser Thr Ser Ser Asn Tyr Ile His
65 70 75 80

Tyr Ala Asp Ser Leu Gln Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Asn Ser Leu Tyr Leu Gln Met Ser Ser Leu Arg Val Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Val Arg Asp Lys Gly Thr Thr Leu Thr Asn Trp
115 120 125

Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Asp Met Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala
165 170 175

Ser Val Gly Asp Arg Val Thr Leu Thr Cys Arg Ala Ser Gln Gly Ile
180 185 190

Ser Asn Tyr Leu Ala Trp Phe Gln Leu Lys Pro Gly Lys Val Pro Lys
195 200 205

Leu Leu Ile Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg
210 215 220

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ala Leu Thr Ile Ser Ser
225 230 235 240

Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser
245 250 255

Ala Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Thr Thr
260 265 270

Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln
275 280 285

Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala
290 295 300

Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala
305 310 315 320

Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr
325 330 335

Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
340 345 350

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
355 360 365

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
370 375 380

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
385 390 395 400

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
405 410 415

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
420 425 430

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
435 440 445

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
450 455 460

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
465 470 475 480

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 595

<211> 497

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 595

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Gly Ala Ser Gly Phe
35 40 45

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

Gly Leu Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr
65 70 75 80

Tyr Ala Asp Ser Leu Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
85 90 95

Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Gly Tyr Ser Gly Ser Ser Asp Ala
115 120 125

Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
145 150 155 160

Gly Ser Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr
165 170 175

Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Leu Val
180 185 190

His Ser Asn Gly Tyr Asn Tyr Leu Asn Trp Tyr Leu Gln Lys Pro Gly
195 200 205

Gln Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly
210 215 220

Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Ser Asp Phe Thr Leu
225 230 235 240

Lys Ile Ser Arg Met Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met
245 250 255

Gln Ala Ile Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Asn Val Glu
260 265 270

Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
275 280 285

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
290 295 300

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
305 310 315 320

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser
325 330 335

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
340 345 350

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
355 360 365

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu
370 375 380

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
385 390 395 400

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
405 410 415

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
420 425 430

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
435 440 445

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
450 455 460

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr
465 470 475 480

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
485 490 495

Arg

<210> 596

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 596

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Gln Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly
35 40 45

Ser Ile Ser Tyr Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys
50 55 60

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

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys
85 90 95

Asp Gln Phe Ser Leu Lys Leu Thr Ser Val Ser Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Val Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe
115 120 125

Trp Gly Gln Gly Thr Leu Val Ala Val Ser Leu Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr
195 200 205

Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
225 230 235 240

Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Cys Thr
245 250 255

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala Pro
260 265 270

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
275 280 285

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
305 310 315 320

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
325 330 335

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
340 345 350

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
355 360 365

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
370 375 380

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
385 390 395 400

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
405 410 415

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
420 425 430

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 597

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 597

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Thr Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr
35 40 45

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

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

Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Ala Arg Asp Thr Ser
85 90 95

Ile Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Arg Lys Arg Glu Tyr Tyr Tyr Asn
115 120 125

Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Thr
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145 150 155 160

Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
165 170 175

Ala Ser Val Gly Asp Arg Ile Ile Phe Thr Cys Gln Ala Ser Gln Asp
180 185 190

Ile Asn Asn Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
195 200 205

Lys Leu Leu Ile Tyr Asp Ala Ser Asp Trp Glu Thr Gly Val Pro Ser
210 215 220

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser
225 230 235 240

Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp
245 250 255

His Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Val Glu Ile Lys Thr
260 265 270

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
275 280 285

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
290 295 300

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
305 310 315 320

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
325 330 335

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
340 345 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
355 360 365

Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
370 375 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385 390 395 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
405 410 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 598

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 598

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu
1 5 10 15

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

Thr Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr
35 40 45

Thr Phe Thr Ser His Tyr Ile Tyr Trp Val Arg Gln Ala Pro Gly Gln
50 55 60

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

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

Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Lys Asp Arg Lys Arg Glu Tyr Tyr Tyr Asn
115 120 125

Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ala
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145 150 155 160

Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
165 170 175

Ala Ser Val Gly Asp Arg Val Ile Leu Thr Cys Gln Ala Ser Gln Asp
180 185 190

Ile Ser Asn Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
195 200 205

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

Arg Phe Ser Gly Ser Gly Ser Gly Ala Asp Phe Thr Phe Thr Ile Ser
225 230 235 240

Asn Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp
245 250 255

His Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Thr
260 265 270

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
275 280 285

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
290 295 300

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
305 310 315 320

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
325 330 335

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
340 345 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
355 360 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
370 375 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385 390 395 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
405 410 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 599

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 599

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gln Val Gln Leu Val Gln Phe Gly Val Glu Val
20 25 30

Arg Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Val Ser Gly Phe
35 40 45

Thr Phe Thr Ser His Tyr Ile Tyr Trp Val Arg Gln Ala Pro Gly Gln
50 55 60

Gly Leu Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Lys
65 70 75 80

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

Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr
100 105 110

Ser Val Tyr Tyr Cys Val Lys Asp Arg Lys Arg Glu Tyr Tyr Tyr Asn
115 120 125

Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145 150 155 160

Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
165 170 175

Ala Ser Val Gly Asp Arg Val Ile Leu Thr Cys Gln Ala Ser Gln Asp
180 185 190

Ile Ser Asn Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
195 200 205

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

Arg Phe Ser Gly Ser Gly Ser Gly Ala Asp Phe Thr Phe Thr Ile Ser
225 230 235 240

Asn Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp
245 250 255

His Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Thr
260 265 270

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
275 280 285

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
290 295 300

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
305 310 315 320

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
325 330 335

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
340 345 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
355 360 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
370 375 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385 390 395 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
405 410 415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 600

<211> 490

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
construct

<400> 600

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Lys Thr Ser Gly Phe
35 40 45

Thr Leu Ser Ile Tyr Ala Ile His Trp Val Arg Gln Ala Pro Gly Arg
50 55 60

Gly Leu Glu Trp Val Ser Ser Phe Gly Gly Arg Gly Ser Ser Thr Tyr
65 70 75 80

Phe Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ala Ser
85 90 95

Glu Asn Ser Leu Tyr Leu His Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Lys Glu Lys Asp Trp Gly Arg Gly Phe Asp
115 120 125

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
165 170 175

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
180 185 190

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
195 200 205

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
210 215 220

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
225 230 235 240

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Tyr
245 250 255

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala
260 265 270

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
275 280 285

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

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
305 310 315 320

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
325 330 335

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
340 345 350

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
355 360 365

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
370 375 380

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
385 390 395 400

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
405 410 415

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
420 425 430

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
435 440 445

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
450 455 460

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
465 470 475 480

Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 601
<211> 498
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
construct

<400> 601
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asn Tyr Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Ser Ile Ser Ser Ser Thr Ile Tyr Ile Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Lys Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Ile Gly Trp Glu Val Phe Thr Leu
115 120 125

Gly Phe Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val
165 170 175

Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
180 185 190

Leu Tyr Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro
195 200 205

Gly Gln Ser Pro Gln Leu Leu Ile Phe Leu Asn Ser Asn Arg Ala Ser
210 215 220

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
225 230 235 240

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys
245 250 255

Met Gln Ala Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val
260 265 270

Glu Ile Lys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro
275 280 285

Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro
290 295 300

Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp
305 310 315 320

Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu
325 330 335

Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu
340 345 350

Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu
355 360 365

Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys
370 375 380

Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln
385 390 395 400

Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu
405 410 415

Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly
420 425 430

Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu
435 440 445

Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly
450 455 460

Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser
465 470 475 480

Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro
485 490 495

Pro Arg

<210> 602

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 602

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 603

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 603

Cys	Gln	Phe	Asp	Leu	Ser	Thr	Arg	Arg	Leu	Lys	Cys
1				5					10		

<210> 604

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 604

Cys	Gln	Tyr	Asn	Leu	Ser	Ser	Arg	Ala	Leu	Lys	Cys
1				5					10		

<210> 605

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 605

Cys	Val	Trp	Gln	Arg	Trp	Gln	Lys	Ser	Tyr	Val	Cys
1				5					10		

<210> 606

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 606

Cys	Met	Trp	Asp	Arg	Phe	Ser	Arg	Trp	Tyr	Lys	Cys
1				5					10		

<210> 607

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 607

Ser	Phe	Val	Leu	Asn	Trp	Tyr	Arg	Met	Ser	Pro	Ser	Asn	Gln	Thr	Asp
1				5				10						15	

Lys	Leu	Ala	Ala	Phe	Pro	Glu	Asp	Arg
			20					25

<210> 608

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 608

Ser	Gly	Thr	Tyr	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Ala	Pro	Lys	Ala	Gln
1				5				10						15	

Ile Lys Glu

<210> 609

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 609

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

<210> 610

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 610

Gly Gln Asn Asp Thr Ser Gln Thr Ser Ser Pro Ser
1 5 10

<210> 611

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 611

Met Gly Thr Ser Leu Leu Cys Trp Met Ala Leu Cys Leu Leu Gly Ala
1 5 10 15

Asp His Ala Asp Ala
20

<210> 612

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 612

Gly Ser Thr Ser Gly Ser Gly Lys Pro Gly Ser Gly Glu Gly Ser Thr
1 5 10 15

Lys Gly

<210> 613

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MISC_FEATURE

<222> (1)..(25)

<223> This sequence may encompass 1-5 "Gly Gly Gly Gly Ser"
repeating units

<400> 613

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
 20 25

<210> 614

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 614

Ser Gly Gly Gly Gly
1 5

<210> 615

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 615

Gly Gly Gly Gly Ser
1 5

<210> 616

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 616

Ser Gly Gly Gly Gly Ser
1 5

<210> 617
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 617
Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 618
<211> 55
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 618
Gly Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys
1 5 10 15

Ser Gly Gly Gly Gly Ser Glu Leu Pro Thr Gln Gly Thr Phe Ser Asn
20 25 30

Val Ser Thr Asn Val Ser Pro Ala Lys Pro Thr Thr Thr Ala Cys Pro
35 40 45

Tyr Ser Asn Pro Ser Leu Cys
50 55

<210> 619
<211> 489
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 619

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe
35 40 45

Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg Gln Pro Pro
50 55 60

Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys
65 70 75 80

Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr
85 90 95

Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp
100 105 110

Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr Asp Ile Ser
115 120 125

Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser Val Ser Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu
180 185 190

Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Arg Leu Ile Tyr
195 200 205

Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser

210					215						220					
Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Leu	Pro	Glu	
225					230					235					240	
Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	Leu	Asn	Ser	Phe	Pro	Phe	Thr	
				245					250					255		
Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Asn	Thr	Thr	Thr	Pro	Ala	Pro	
			260					265					270			
Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	Leu	
		275					280					285				
Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	Arg	
	290					295					300					
Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro	Leu	Ala	Gly	
305					310					315					320	
Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val	Ile	Thr	Leu	Tyr	Cys	Lys	
			325						330					335		
Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys	Gln	Pro	Phe	Met	Arg	
			340					345					350			
Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser	Cys	Arg	Phe	Pro	
		355					360					365				
Glu	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu	Arg	Val	Lys	Phe	Ser	Arg	Ser	
	370					375					380					
Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn	Gln	Leu	Tyr	Asn	Glu	
385					390					395					400	
Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp	Val	Leu	Asp	Lys	Arg	Arg	
				405					410					415		
Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro	Arg	Arg	Lys	Asn	Pro	Gln	
			420					425					430			

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
435 440 445

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
450 455 460

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
465 470 475 480

Leu His Met Gln Ala Leu Pro Pro Arg
485

<210> 620

<211> 526

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 620

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe
35 40 45

Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg Gln Pro Pro
50 55 60

Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys
65 70 75 80

Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr
85 90 95

Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp
100 105 110

Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr Asp Ile Ser
115 120 125

Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser Val Ser Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu
180 185 190

Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Arg Leu Ile Tyr
195 200 205

Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Leu Pro Glu
225 230 235 240

Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Leu Asn Ser Phe Pro Phe Thr
245 250 255

Phe Gly Gly Gly Thr Lys Val Glu Ile Asn Gly Ser Gly Gly Gly Gly
260 265 270

Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser
275 280 285

Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Thr
290 295 300

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
305 310 315 320

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly

[illegible]

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 621

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr
35 40 45

Gly Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys
50 55 60

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

Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser
85 90 95

Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr
100 105 110

Ala Met Tyr Tyr Cys Ala Ser Ser Tyr Leu Arg Gly Leu Trp Gly Gly
115 120 125

Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

Gly Gly Ser Glu Leu Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser
165 170 175

Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser
180 185 190

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

Ala Pro Lys Leu Leu Ile Tyr Gly Asp Tyr Gln Arg Pro Ser Gly Val
210 215 220

Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala
225 230 235 240

Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr
245 250 255

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

Leu Thr Val Leu Gly Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn
275 280 285

Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
290 295 300

Ser Leu Cys Ser Gly Gly Gly Gly Ser Thr Thr Thr Pro Ala Pro Arg
305 310 315 320

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
325 330 335

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
340 345 350

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
355 360 365

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg
370 375 380

Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro
385 390 395 400

Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu

405 410 415

Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala
420 425 430

Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu
435 440 445

Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly
450 455 460

Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu
465 470 475 480

Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser
485 490 495

Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly
500 505 510

Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu
515 520 525

His Met Gln Ala Leu Pro Pro Arg
530 535

<210> 622
<211> 526
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 622
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly

35	40	45
Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys 50 55 60		
Gly Leu Glu Trp Ile Gly His Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr 65 70 75 80		
Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys 85 90 95		
Asn Leu Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala 100 105 110		
Val Tyr Tyr Cys Ala Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Phe 115 120 125		
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser 130 135 140		
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp 145 150 155 160		
Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly Asp 165 170 175		
Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Trp Leu 180 185 190		
Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile Tyr 195 200 205		
Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly Ser 210 215 220		
Gly Ser Gly Thr Glu Phe Ile Leu Thr Ile Asn Ser Leu Gln Pro Asp 225 230 235 240		
Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr Ser His Thr 245 250 255		

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Ser Gly Gly Gly Gly
260 265 270

Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser
275 280 285

Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Thr
290 295 300

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
305 310 315 320

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
325 330 335

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
340 345 350

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
355 360 365

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
370 375 380

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
385 390 395 400

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
405 410 415

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
420 425 430

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
435 440 445

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
450 455 460

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys

465 470 475 480

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
 485 490 495

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
 500 505 510

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 515 520 525

<210> 623
<211> 526
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 623
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Ser Glu Thr Leu Ser Leu Asn Cys Thr Val Ser Gly Gly
 35 40 45

Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys
 50 55 60

Gly Leu Glu Trp Ile Gly His Val Ile Tyr Ser Gly Thr Thr Asn Tyr
65 70 75 80

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys
 85 90 95

Asn Gln Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala
 100 105 110

Val Tyr Tyr Cys Val Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp Leu

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

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
340 345 350

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
355 360 365

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
370 375 380

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
385 390 395 400

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
405 410 415

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
420 425 430

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
435 440 445

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
450 455 460

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
465 470 475 480

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
485 490 495

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
500 505 510

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 624

<211> 526

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 624

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Asn Pro
50 55 60

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

Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr
85 90 95

Ser Lys Asn Gln Phe Ser Leu Lys Leu Arg Ser Val Thr Ala Ala Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Thr Arg Asp Phe Gly Trp Tyr Phe Asp Leu
115 120 125

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
165 170 175

Ser Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asp Asn Tyr Leu
180 185 190

Ala Trp Tyr Gln Gln Lys Thr Gly Lys Val Pro Lys Val Leu Ile Tyr

195	200	205
Ala 210	Ala Ser 215	Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser 220
Gly 225	Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu 230 235 240	
Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Gly Pro Arg Thr 245 250 255		
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Ser Gly Gly Gly Gly 260 265 270		
Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser 275 280 285		
Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Thr 290 295 300		
Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser 305 310 315 320		
Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly 325 330 335		
Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp 340 345 350		
Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile 355 360 365		
Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys 370 375 380		
Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys 385 390 395 400		
Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val 405 410 415		

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
420 425 430

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val
435 440 445

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
450 455 460

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
465 470 475 480

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
485 490 495

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
500 505 510

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 625

<211> 526

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 625

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

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

Ser Val Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro
50 55 60

Gly Lys Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Tyr Arg Arg Ile Thr
65 70 75 80

Asp Tyr Asn Pro Ser Leu Lys Ser Arg Val Asn Ile Ser Leu Asp Thr
85 90 95

Ser Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Phe Gly Trp Tyr Phe Asp Leu
115 120 125

Trp Gly Arg Gly Thr Leu Val Ala Val Ser Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
145 150 155 160

Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
165 170 175

Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu
180 185 190

Thr Trp Tyr Gln Gln Lys Pro Gly Arg Val Pro Glu Val Leu Ile Tyr
195 200 205

Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
210 215 220

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
225 230 235 240

Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Ala Pro Arg Thr
245 250 255

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Ser Gly Gly Gly Gly
260 265 270

Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser

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

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
500 505 510

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 626

<211> 528

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 626

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Glu Leu Val Glu Ser Gly Gly Gly Met
20 25 30

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Met
50 55 60

Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
85 90 95

Lys Asn Thr Val Phe Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Glu Val Gly Phe Val Gly Ala Phe
115 120 125

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val
165 170 175

Gly Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Gly Ile Asn Ser
180 185 190

His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
195 200 205

Ile Tyr Tyr Ala Ser Thr Leu Pro Ser Gly Val Pro Ser Arg Phe Ser
210 215 220

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Thr Ser Leu Gln
225 230 235 240

Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn His Tyr Pro
245 250 255

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

Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly
290 295 300

Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile
305 310 315 320

Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala
325 330 335

Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
340 345 350

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu

355

360

365

Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile
370 375 380

Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp
385 390 395 400

Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
405 410 415

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

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
435 440 445

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
450 455 460

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
465 470 475 480

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
485 490 495

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
500 505 510

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 627

<211> 526

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 627

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu

1	5	10	15												
His	Ala	Ala	Arg	Pro	Gln	Val	Gln	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu
			20					25					30		
Val	Gln	Pro	Ser	Glu	Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Gly
		35					40					45			
Ser	Ile	Ser	Tyr	Tyr	Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys
	50					55					60				
Gly	Leu	Glu	Trp	Ile	Gly	Asn	Ile	Asn	Tyr	Met	Gly	Asn	Thr	Ile	Tyr
65					70					75					80
Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys
				85					90					95	
Asp	Gln	Phe	Ser	Leu	Lys	Leu	Thr	Ser	Val	Ser	Ala	Ala	Asp	Thr	Ala
			100					105					110		
Val	Tyr	Tyr	Cys	Val	Arg	Ala	Glu	Gly	Ser	Leu	Asp	Ala	Phe	Asp	Phe
		115					120					125			
Trp	Gly	Gln	Gly	Thr	Leu	Val	Ala	Val	Ser	Leu	Gly	Gly	Gly	Gly	Ser
	130					135					140				
Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp
145					150					155					160
Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Thr	Leu	Ser	Ala	Ser	Val	Gly	Asp
				165					170					175	
Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Ser	Ile	Ser	Ser	Trp	Leu
			180					185					190		
Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Val	Leu	Ile	Tyr
		195					200					205			
Lys	Ala	Ser	Asn	Leu	Glu	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser
	210					215					220				

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
225 230 235 240

Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Cys Thr
245 250 255

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Ser Gly Gly Gly Gly
260 265 270

Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser
275 280 285

Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Thr
290 295 300

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
305 310 315 320

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
325 330 335

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
340 345 350

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
355 360 365

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
370 375 380

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
385 390 395 400

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
405 410 415

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
420 425 430

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val

435

440

445

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
450 455 460

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
465 470 475 480

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
485 490 495

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
500 505 510

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 628

<211> 569

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 628

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
35 40 45

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

Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Ala Arg Met
65 70 75 80

Gly Val Thr Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu

85										90					95				
Ala	His	Ile	Phe	Ser	Asn	Asp	Glu	Lys	Ser	Tyr	Ser	Thr	Ser	Leu	Lys				
			100					105					110						
Ser	Arg	Leu	Thr	Ile	Ser	Lys	Asp	Thr	Ser	Lys	Thr	Gln	Val	Val	Leu				
		115					120					125							
Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr	Cys	Ala				
	130					135					140								
Arg	Ile	Arg	Asp	Tyr	Tyr	Asp	Ile	Ser	Ser	Tyr	Tyr	Asp	Tyr	Trp	Gly				
145					150					155					160				
Gln	Gly	Thr	Leu	Val	Ser	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly				
			165						170					175					
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro				
			180					185					190						
Ser	Ala	Met	Ser	Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg				
		195					200					205							
Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr	Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro				
	210					215					220								
Gly	Lys	Val	Pro	Lys	Arg	Leu	Ile	Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser				
225					230					235					240				
Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr				
				245					250					255					
Leu	Thr	Ile	Ser	Ser	Leu	Leu	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys				
			260					265					270						
Leu	Gln	Leu	Asn	Ser	Phe	Pro	Phe	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val				
		275					280					285							
Glu	Ile	Asn	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Cys	Pro	Tyr	Ser	Asn	Pro				
	290					295					300								

Ser Leu Cys Ser Gly Gly Gly Gly Ser Glu Leu Pro Thr Gln Gly Thr
305 310 315 320

Phe Ser Asn Val Ser Thr Asn Val Ser Pro Ala Lys Pro Thr Thr Thr
325 330 335

Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala Pro
340 345 350

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
355 360 365

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
370 375 380

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
385 390 395 400

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
405 410 415

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
420 425 430

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
435 440 445

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
450 455 460

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
465 470 475 480

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
485 490 495

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
500 505 510

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr

515

520

525

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
530 535 540

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
545 550 555 560

Leu His Met Gln Ala Leu Pro Pro Arg
565

<210> 629

<211> 579

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 629

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
35 40 45

Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu Ser Leu
50 55 60

Lys Ile Ser Cys Lys Gly Ser Gly Tyr Gly Phe Thr Ser Tyr Trp Ile
65 70 75 80

Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met Gly Ile
85 90 95

Ile His Pro Asp Asp Ser Asp Thr Lys Tyr Ser Pro Ser Phe Gln Gly
100 105 110

Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln

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

Asn Val Ser Pro Ala Lys Pro Thr Thr Thr Ala Cys Pro Tyr Ser Asn
340 345 350

Pro Ser Leu Cys Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala
355 360 365

Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg
370 375 380

Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys
385 390 395 400

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
405 410 415

Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu
420 425 430

Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln
435 440 445

Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly
450 455 460

Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr
465 470 475 480

Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg
485 490 495

Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met
500 505 510

Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu
515 520 525

Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys
530 535 540

Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu

545 550 555 560
Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu
 565 570 575

Pro Pro Arg

<210> 630
<211> 569
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 630
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
 20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
 35 40 45

Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu Thr Leu
 50 55 60

Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp
65 70 75 80

Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly His
 85 90 95

Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg
 100 105 110

Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Leu Phe Ser Leu Lys Leu
 115 120 125

Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala Arg Ala

130						135						140				
Glu	Gly	Ser	Leu	Asp	Ala	Phe	Asp	Phe	Trp	Gly	Gln	Gly	Thr	Met	Val	
145					150					155					160	
Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	
				165					170					175		
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	
			180					185					190			
Ser	Thr	Leu	Ser	Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	
		195					200					205				
Ala	Ser	Gln	Ser	Ile	Ser	Thr	Trp	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	
	210					215					220					
Gly	Lys	Ala	Pro	Lys	Val	Leu	Ile	Tyr	Lys	Ala	Ser	Ser	Leu	Glu	Ser	
225					230					235					240	
Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Ile	
				245					250					255		
Leu	Thr	Ile	Asn	Ser	Leu	Gln	Pro	Asp	Asp	Phe	Ala	Ser	Tyr	Tyr	Cys	
			260					265					270			
Gln	Gln	Tyr	Lys	Ser	Tyr	Ser	His	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	
		275					280					285				
Glu	Ile	Lys	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Cys	Pro	Tyr	Ser	Asn	Pro	
	290					295					300					
Ser	Leu	Cys	Ser	Gly	Gly	Gly	Gly	Ser	Glu	Leu	Pro	Thr	Gln	Gly	Thr	
305					310					315					320	
Phe	Ser	Asn	Val	Ser	Thr	Asn	Val	Ser	Pro	Ala	Lys	Pro	Thr	Thr	Thr	
				325					330					335		
Ala	Cys	Pro	Tyr	Ser	Asn	Pro	Ser	Leu	Cys	Thr	Thr	Thr	Pro	Ala	Pro	
			340					345					350			

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
355 360 365

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
370 375 380

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
385 390 395 400

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
405 410 415

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
420 425 430

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
435 440 445

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
450 455 460

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
465 470 475 480

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
485 490 495

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
500 505 510

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
515 520 525

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
530 535 540

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
545 550 555 560

Leu His Met Gln Ala Leu Pro Pro Arg

565

<210> 631
<211> 569
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 631
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
35 40 45

Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu Thr Leu
50 55 60

Ser Leu Asn Cys Thr Val Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp
65 70 75 80

Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly His
85 90 95

Val Ile Tyr Ser Gly Thr Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg
100 105 110

Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu
115 120 125

Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val Arg Ala
130 135 140

Glu Gly Ser Leu Asp Ala Phe Asp Leu Trp Gly Gln Gly Thr Met Val
145 150 155 160

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly

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

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
385 390 395 400

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
405 410 415

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
420 425 430

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
435 440 445

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
450 455 460

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
465 470 475 480

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
485 490 495

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
500 505 510

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
515 520 525

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
530 535 540

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
545 550 555 560

Leu His Met Gln Ala Leu Pro Pro Arg
565

<210> 632

<211> 569

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 632

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
35 40 45

Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Leu Gln Thr Leu
50 55 60

Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp Gly Tyr
65 70 75 80

Tyr Trp Ser Trp Ile Arg Gln Asn Pro Gly Lys Gly Leu Glu Trp Ile
85 90 95

Gly Tyr Met Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys
100 105 110

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
115 120 125

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

Arg Asp Phe Gly Trp Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu Val
145 150 155 160

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
165 170 175

Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro
180 185 190

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

195	200	205
Ala Ser Gln Asp Ile Asp Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Thr 210 215 220		
Gly Lys Val Pro Lys Val Leu Ile Tyr Ala Ala Ser Ala Leu Gln Ser 225 230 235 240		
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr 245 250 255		
Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys 260 265 270		
Gln Asn Tyr Asn Ser Gly Pro Arg Thr Phe Gly Gln Gly Thr Lys Val 275 280 285		
Glu Ile Lys Gly Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro 290 295 300		
Ser Leu Cys Ser Gly Gly Gly Gly Ser Glu Leu Pro Thr Gln Gly Thr 305 310 315 320		
Phe Ser Asn Val Ser Thr Asn Val Ser Pro Ala Lys Pro Thr Thr Thr 325 330 335		
Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala Pro 340 345 350		
Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu 355 360 365		
Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg 370 375 380		
Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly 385 390 395 400		
Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys 405 410 415		

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
420 425 430

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
435 440 445

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
450 455 460

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
465 470 475 480

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
485 490 495

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
500 505 510

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
515 520 525

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
530 535 540

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
545 550 555 560

Leu His Met Gln Ala Leu Pro Pro Arg
565

<210> 633

<211> 569

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 633

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
35 40 45

Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Ser Leu
50 55 60

Ser Leu Thr Cys Ser Val Ser Gly Gly Ser Val Ser Ser Asp Gly Tyr
65 70 75 80

Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu Trp Ile
85 90 95

Gly Tyr Ile Tyr Tyr Arg Arg Ile Thr Asp Tyr Asn Pro Ser Leu Lys
100 105 110

Ser Arg Val Asn Ile Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
115 120 125

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
130 135 140

Arg Asp Phe Gly Trp Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu Val
145 150 155 160

Ala Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
165 170 175

Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro
180 185 190

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg
195 200 205

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

Gly Arg Val Pro Glu Val Leu Ile Tyr Ala Ala Ser Ala Leu Gln Ser

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

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
450 455 460

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
465 470 475 480

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
485 490 495

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
500 505 510

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
515 520 525

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
530 535 540

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
545 550 555 560

Leu His Met Gln Ala Leu Pro Pro Arg
565

<210> 634

<211> 571

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 634

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
35 40 45

Glu Leu Val Glu Ser Gly Gly Gly Met Val Gln Pro Gly Arg Ser Leu
50 55 60

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr Gly Met
65 70 75 80

His Trp Val Arg Gln Ala Pro Gly Met Gly Leu Glu Trp Val Thr Val
85 90 95

Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys Gly
100 105 110

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val Phe Leu Gln
115 120 125

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
130 135 140

Asp Glu Val Gly Phe Val Gly Ala Phe Asp Ile Trp Gly Gln Gly Thr
145 150 155 160

Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
165 170 175

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln
180 185 190

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

Cys Arg Ala Ser Gln Gly Ile Asn Ser His Leu Ala Trp Tyr Gln Gln
210 215 220

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

Pro Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu
245 250 255

Phe Thr Leu Thr Val Thr Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr

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

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
485 490 495

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
500 505 510

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
515 520 525

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
530 535 540

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
545 550 555 560

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
565 570

<210> 635

<211> 569

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 635

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
35 40 45

Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Gln Pro Ser Glu Thr Leu
50 55 60

Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp
65 70 75 80

Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn
85 90 95

Ile Asn Tyr Met Gly Asn Thr Ile Tyr Asn Pro Ser Leu Lys Ser Arg
100 105 110

Val Thr Ile Ser Val Asp Thr Ser Lys Asp Gln Phe Ser Leu Lys Leu
115 120 125

Thr Ser Val Ser Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val Arg Ala
130 135 140

Glu Gly Ser Leu Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr Leu Val
145 150 155 160

Ala Val Ser Leu Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
165 170 175

Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro
180 185 190

Ser Thr Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg
195 200 205

Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala Trp Tyr Gln Gln Lys Pro
210 215 220

Gly Lys Ala Pro Lys Val Leu Ile Tyr Lys Ala Ser Asn Leu Glu Ser
225 230 235 240

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
245 250 255

Leu Thr Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys
260 265 270

Gln Gln Tyr Asn Ser Tyr Ser Cys Thr Phe Gly Gln Gly Thr Lys Leu
275 280 285

Glu Ile Lys Gly Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro

290

295

300

Ser Leu Cys Ser Gly Gly Gly Gly Ser Glu Leu Pro Thr Gln Gly Thr
305 310 315 320

Phe Ser Asn Val Ser Thr Asn Val Ser Pro Ala Lys Pro Thr Thr Thr
325 330 335

Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala Pro
340 345 350

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
355 360 365

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
370 375 380

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
385 390 395 400

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
405 410 415

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
420 425 430

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro
435 440 445

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
450 455 460

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
465 470 475 480

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
485 490 495

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
500 505 510

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
515 520 525

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
530 535 540

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
545 550 555 560

Leu His Met Gln Ala Leu Pro Pro Arg
565

<210> 636

<211> 527

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 636

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Thr Leu Lys Glu Ser Gly
35 40 45

Pro Val Leu Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val
50 55 60

Ser Gly Phe Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg
65 70 75 80

Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn
85 90 95

Asp Glu Lys Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser
100 105 110

Lys Asp Thr Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp
115 120 125

Pro Val Asp Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr
130 135 140

Asp Ile Ser Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser
145 150 155 160

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser Ala Ser
180 185 190

Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser
195 200 205

Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Arg
210 215 220

Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe
225 230 235 240

Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu
245 250 255

Leu Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Leu Asn Ser Phe
260 265 270

Pro Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Asn Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Gly Gly Gly Gly Ser
290 295 300

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
305 310 315 320

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly

325					330					335					
Gly	Ala	Val	His	Thr	Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile
			340					345					350		
Trp	Ala	Pro	Leu	Ala	Gly	Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val
		355					360					365			
Ile	Thr	Leu	Tyr	Cys	Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe
	370					375					380				
Lys	Gln	Pro	Phe	Met	Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly
385					390					395					400
Cys	Ser	Cys	Arg	Phe	Pro	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu	Arg	
				405					410					415	
Val	Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln
			420					425					430		
Asn	Gln	Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp
		435					440					445			
Val	Leu	Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro
	450					455					460				
Arg	Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp
465					470					475					480
Lys	Met	Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg
				485					490					495	
Arg	Gly	Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr
			500					505					510		
Lys	Asp	Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg	
		515					520					525			

<210> 637

<211> 537

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 637

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Glu Val Gln Leu Val Gln Ser Gly
35 40 45

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

Ser Gly Tyr Gly Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Met Gly Ile Ile His Pro Asp Asp Ser
85 90 95

Asp Thr Lys Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala
100 105 110

Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala
115 120 125

Ser Asp Thr Ala Met Tyr Tyr Cys Ala Ser Ser Tyr Leu Arg Gly Leu
130 135 140

Trp Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
145 150 155 160

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
165 170 175

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

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
195 200 205

Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu
210 215 220

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

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
245 250 255

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
260 265 270

Cys Ala Thr Arg Asp Asp Ser Leu Ser Gly Ser Val Val Phe Gly Thr
275 280 285

Gly Thr Lys Leu Thr Val Leu Gly Gly Gly Gly Ser Cys Pro Tyr Ser
290 295 300

Asn Pro Ser Leu Cys Gly Gly Gly Gly Ser Thr Thr Thr Pro Ala Pro
305 310 315 320

Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu
325 330 335

Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg
340 345 350

Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly
355 360 365

Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys
370 375 380

Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg
385 390 395 400

Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro

405

410

415

Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser
420 425 430

Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu
435 440 445

Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg
450 455 460

Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln
465 470 475 480

Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr
485 490 495

Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp
500 505 510

Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala
515 520 525

Leu His Met Gln Ala Leu Pro Pro Arg
530 535

<210> 638

<211> 527

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 638

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly

35					40					45					
Pro	Gly	Leu	Val	Lys	Pro	Ser	Glu	Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val
	50					55					60				
Ser	Gly	Gly	Ser	Ile	Ser	Tyr	Tyr	Tyr	Trp	Thr	Trp	Ile	Arg	Gln	Pro
65					70					75					80
Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile	Gly	His	Ile	Tyr	Tyr	Ser	Gly	Ser
				85					90					95	
Thr	Asn	Tyr	Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Ile	Asp
			100					105					110		
Thr	Ser	Lys	Asn	Leu	Phe	Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala
		115					120					125			
Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Ala	Glu	Gly	Ser	Leu	Asp	Ala
	130					135					140				
Phe	Asp	Phe	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Gly	Gly
145					150					155					160
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly
				165					170					175	
Gly	Ser	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Thr	Leu	Ser	Ala	Ser
			180					185					190		
Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Ser	Ile	Ser
		195					200					205			
Thr	Trp	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Val
	210					215					220				
Leu	Ile	Tyr	Lys	Ala	Ser	Ser	Leu	Glu	Ser	Gly	Val	Pro	Ser	Arg	Phe
225					230					235					240
Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Ile	Leu	Thr	Ile	Asn	Ser	Leu
				245					250					255	

Gln Pro Asp Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr
260 265 270

Ser His Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Gly Gly Gly Gly Ser
290 295 300

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
305 310 315 320

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
325 330 335

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
340 345 350

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
355 360 365

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
370 375 380

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
385 390 395 400

Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg
405 410 415

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

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
435 440 445

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
450 455 460

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp

465 470 475 480

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
 485 490 495

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
 500 505 510

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 515 520 525

<210> 639
<211> 527
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 639
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
 20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
 35 40 45

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

Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Ile Gly His Val Ile Tyr Ser Gly Thr
 85 90 95

Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp
 100 105 110

Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala

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

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
340 345 350

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
355 360 365

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
370 375 380

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
385 390 395 400

Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg
405 410 415

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

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
435 440 445

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
450 455 460

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
465 470 475 480

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
485 490 495

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
500 505 510

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 640

<211> 527

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 640

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

Pro Gly Leu Val Lys Pro Leu Gln Thr Leu Ser Leu Thr Cys Thr Val
50 55 60

Ser Gly Gly Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg
65 70 75 80

Gln Asn Pro Gly Lys Gly Leu Glu Trp Ile Gly Tyr Met Tyr Tyr Ser
85 90 95

Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser
100 105 110

Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Arg Ser Val Thr
115 120 125

Ala Ala Asp Thr Ala Val Tyr Tyr Cys Thr Arg Asp Phe Gly Trp Tyr
130 135 140

Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

Val Gly Asp Ser Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asp

195	200	205
Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Thr Gly Lys Val Pro Lys Val 210 215 220		
Leu Ile Tyr Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe 225 230 235 240		
Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu 245 250 255		
Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Gly 260 265 270		
Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly Gly 275 280 285		
Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Gly Gly Gly Gly Ser 290 295 300		
Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala 305 310 315 320		
Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly 325 330 335		
Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile 340 345 350		
Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val 355 360 365		
Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe 370 375 380		
Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly 385 390 395 400		
Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg 405 410 415		

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

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
435 440 445

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
450 455 460

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
465 470 475 480

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
485 490 495

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
500 505 510

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 641

<211> 527

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 641

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

Pro Gly Leu Val Lys Pro Ser Gln Ser Leu Ser Leu Thr Cys Ser Val
50 55 60

Ser Gly Gly Ser Val Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg
65 70 75 80

Gln His Pro Gly Lys Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Tyr Arg
85 90 95

Arg Ile Thr Asp Tyr Asn Pro Ser Leu Lys Ser Arg Val Asn Ile Ser
100 105 110

Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr
115 120 125

Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Phe Gly Trp Tyr
130 135 140

Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Ala Val Ser Ser Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser
195 200 205

Asn Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Arg Val Pro Glu Val
210 215 220

Leu Ile Tyr Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe
225 230 235 240

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu
245 250 255

Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Ala
260 265 270

Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly Gly

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

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
500 505 510

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 642

<211> 529

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 642

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Glu Val Glu Leu Val Glu Ser Gly
35 40 45

Gly Gly Met Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala
50 55 60

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

Pro Gly Met Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser
85 90 95

Asn Lys Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
100 105 110

Asp Asn Ser Lys Asn Thr Val Phe Leu Gln Met Asn Ser Leu Arg Ala
115 120 125

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Glu Val Gly Phe Val
130 135 140

Gly Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
145 150 155 160

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
165 170 175

Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser
180 185 190

Ala Ser Val Gly Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Gly
195 200 205

Ile Asn Ser His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
210 215 220

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

Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Thr
245 250 255

Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn
260 265 270

His Tyr Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Asp Ile Asn Gly
275 280 285

Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Gly Gly Gly
290 295 300

Gly Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
305 310 315 320

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
325 330 335

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
340 345 350

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser

355

360

365

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
370 375 380

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
385 390 395 400

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu
405 410 415

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
420 425 430

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
435 440 445

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
450 455 460

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
465 470 475 480

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
485 490 495

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr
500 505 510

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
515 520 525

Arg

<210> 643

<211> 527

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

polypeptide

<400> 643

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

Pro Gly Leu Val Gln Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val
50 55 60

Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Ser Trp Ile Arg Gln Pro
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn Ile Asn Tyr Met Gly Asn
85 90 95

Thr Ile Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp
100 105 110

Thr Ser Lys Asp Gln Phe Ser Leu Lys Leu Thr Ser Val Ser Ala Ala
115 120 125

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

Phe Asp Phe Trp Gly Gln Gly Thr Leu Val Ala Val Ser Leu Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser
195 200 205

Ser Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val
210 215 220

Leu Ile Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe
225 230 235 240

Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu
245 250 255

Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr
260 265 270

Ser Cys Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Gly Gly Gly Gly Ser
290 295 300

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
305 310 315 320

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
325 330 335

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
340 345 350

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
355 360 365

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
370 375 380

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
385 390 395 400

Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg
405 410 415

Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln

420

425

430

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
435 440 445

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
450 455 460

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
465 470 475 480

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
485 490 495

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
500 505 510

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 644

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 644

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Thr Leu Lys Glu Ser Gly
35 40 45

Pro Val Leu Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val
50 55 60

Ser Gly Phe Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg

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

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala
290 295 300

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
305 310 315 320

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
325 330 335

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
340 345 350

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
370 375 380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp

500

505

510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 645

<211> 532

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 645

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Glu Val Gln Leu Val Gln Ser Gly
35 40 45

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

Ser Gly Tyr Gly Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Met Gly Ile Ile His Pro Asp Asp Ser
85 90 95

Asp Thr Lys Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala
100 105 110

Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala
115 120 125

Ser Asp Thr Ala Met Tyr Tyr Cys Ala Ser Ser Tyr Leu Arg Gly Leu
130 135 140

Trp Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val

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

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
370 375 380

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
385 390 395 400

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly
405 410 415

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
420 425 430

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
435 440 445

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
450 455 460

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
465 470 475 480

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
485 490 495

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
500 505 510

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
515 520 525

Leu Pro Pro Arg
530

<210> 646

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 646

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

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

Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Ile Gly His Ile Tyr Tyr Ser Gly Ser
85 90 95

Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Ile Asp
100 105 110

Thr Ser Lys Asn Leu Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala
115 120 125

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

Phe Asp Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser
195 200 205

Thr Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val

210	215	220
Leu Ile Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe 225 230 235 240		
Ser Gly Ser Gly Ser Gly Thr Glu Phe Ile Leu Thr Ile Asn Ser Leu 245 250 255		
Gln Pro Asp Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr 260 265 270		
Ser His Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly 275 280 285		
Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala 290 295 300		
Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser 305 310 315 320		
Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr 325 330 335		
Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala 340 345 350		
Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys 355 360 365		
Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met 370 375 380		
Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe 385 390 395 400		
Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg 405 410 415		
Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn 420 425 430		

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 647

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 647

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

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

Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Ile Gly His Val Ile Tyr Ser Gly Thr
85 90 95

Thr Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp
100 105 110

Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala
115 120 125

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

Phe Asp Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Val Ser
195 200 205

Ser Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val
210 215 220

Leu Ile Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe
225 230 235 240

Ser Gly Thr Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu
245 250 255

Gln Ser Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr
260 265 270

Ser His Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala

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

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 648

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 648

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

Pro Gly Leu Val Lys Pro Leu Gln Thr Leu Ser Leu Thr Cys Thr Val
50 55 60

Ser Gly Gly Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg
65 70 75 80

Gln Asn Pro Gly Lys Gly Leu Glu Trp Ile Gly Tyr Met Tyr Tyr Ser
85 90 95

Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser
100 105 110

Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Arg Ser Val Thr
115 120 125

Ala Ala Asp Thr Ala Val Tyr Tyr Cys Thr Arg Asp Phe Gly Trp Tyr
130 135 140

Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

Val Gly Asp Ser Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Asp
195 200 205

Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Thr Gly Lys Val Pro Lys Val
210 215 220

Leu Ile Tyr Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe
225 230 235 240

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu
245 250 255

Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Gly
260 265 270

Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala
290 295 300

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
305 310 315 320

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
325 330 335

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
340 345 350

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met

370

375

380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 649

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 649

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro

20					25					30					
Ser	Leu	Cys	Gly	Gly	Gly	Gly	Ser	Gln	Val	Gln	Leu	Gln	Glu	Ser	Gly
		35					40					45			
Pro	Gly	Leu	Val	Lys	Pro	Ser	Gln	Ser	Leu	Ser	Leu	Thr	Cys	Ser	Val
	50					55					60				
Ser	Gly	Gly	Ser	Val	Ser	Ser	Asp	Gly	Tyr	Tyr	Trp	Ser	Trp	Ile	Arg
65					70					75					80
Gln	His	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile	Gly	Tyr	Ile	Tyr	Tyr	Arg
				85					90					95	
Arg	Ile	Thr	Asp	Tyr	Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Asn	Ile	Ser
			100					105					110		
Leu	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr
		115					120					125			
Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Phe	Gly	Trp	Tyr
	130					135					140				
Phe	Asp	Leu	Trp	Gly	Arg	Gly	Thr	Leu	Val	Ala	Val	Ser	Ser	Gly	Gly
145					150					155					160
Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly
				165					170					175	
Gly	Ser	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser
			180					185					190		
Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Asp	Ile	Ser
		195					200					205			
Asn	Tyr	Leu	Thr	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Arg	Val	Pro	Glu	Val
	210					215					220				
Leu	Ile	Tyr	Ala	Ala	Ser	Ala	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe
225					230					235					240

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu
245 250 255

Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Ala
260 265 270

Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly Gly
275 280 285

Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro Ala
290 295 300

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
305 310 315 320

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
325 330 335

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
340 345 350

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
370 375 380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro

450

455

460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 650

<211> 524

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 650

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Glu Val Glu Leu Val Glu Ser Gly
35 40 45

Gly Gly Met Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala
50 55 60

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

Pro Gly Met Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser
85 90 95

Asn Lys Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg

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

Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val
325 330 335

His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
340 345 350

Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu
355 360 365

Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro
370 375 380

Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys
385 390 395 400

Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe
405 410 415

Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu
420 425 430

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
435 440 445

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
450 455 460

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
465 470 475 480

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
485 490 495

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
500 505 510

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 651

<211> 522
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 651

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly
35 40 45

Pro Gly Leu Val Gln Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val
50 55 60

Ser Gly Gly Ser Ile Ser Tyr Tyr Tyr Trp Ser Trp Ile Arg Gln Pro
65 70 75 80

Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn Ile Asn Tyr Met Gly Asn
85 90 95

Thr Ile Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp
100 105 110

Thr Ser Lys Asp Gln Phe Ser Leu Lys Leu Thr Ser Val Ser Ala Ala
115 120 125

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

Phe Asp Phe Trp Gly Gln Gly Thr Leu Val Ala Val Ser Leu Gly Gly
145 150 155 160

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

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

180					185					190					
Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Ser	Ile	Ser
		195					200					205			
Ser	Trp	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Val
	210					215					220				
Leu	Ile	Tyr	Lys	Ala	Ser	Asn	Leu	Glu	Ser	Gly	Val	Pro	Ser	Arg	Phe
225					230					235					240
Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu
				245					250					255	
Gln	Pro	Asp	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn	Ser	Tyr
			260					265					270		
Ser	Cys	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Gly	Gly	Gly
		275					280					285			
Gly	Ser	Cys	Pro	Tyr	Ser	Asn	Pro	Ser	Leu	Cys	Thr	Thr	Thr	Pro	Ala
	290					295					300				
Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser
305					310					315					320
Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr
				325					330					335	
Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro	Leu	Ala
			340					345					350		
Gly	Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val	Ile	Thr	Leu	Tyr	Cys
		355					360					365			
Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys	Gln	Pro	Phe	Met
	370					375					380				
Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser	Cys	Arg	Phe
385					390					395					400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 652

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 652

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

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

Leu Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly
65 70 75 80

Phe Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg Gln Pro
85 90 95

Pro Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu
100 105 110

Lys Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp
115 120 125

Thr Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val
130 135 140

Asp Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr Asp Ile
145 150 155 160

Ser Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser Val Ser
165 170 175

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
180 185 190

Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser Ala Ser Val Gly
195 200 205

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
210 215 220

Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Arg Leu Ile
225 230 235 240

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
245 250 255

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Leu Pro

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

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 653

<211> 532

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 653

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Glu Val Gln Leu Val Gln Ser Gly Ala Glu
50 55 60

Val Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly
65 70 75 80

Tyr Gly Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly
85 90 95

Lys Gly Leu Glu Trp Met Gly Ile Ile His Pro Asp Asp Ser Asp Thr
100 105 110

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

Ser Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp
130 135 140

Thr Ala Met Tyr Tyr Cys Ala Ser Ser Tyr Leu Arg Gly Leu Trp Gly
145 150 155 160

Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
165 170 175

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
180 185 190

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

Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser
210 215 220

Ser Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly
225 230 235 240

Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asp Tyr Gln Arg Pro Ser Gly
245 250 255

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
260 265 270

Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
275 280 285

Thr Arg Asp Asp Ser Leu Ser Gly Ser Val Val Phe Gly Thr Gly Thr
290 295 300

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

Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys
325 330 335

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala

340

345

350

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu
355 360 365

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
370 375 380

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
385 390 395 400

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly
405 410 415

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
420 425 430

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
435 440 445

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
450 455 460

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
465 470 475 480

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
485 490 495

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
500 505 510

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
515 520 525

Leu Pro Pro Arg
530

<210> 654

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 654

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
50 55 60

Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly
65 70 75 80

Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly
85 90 95

Lys Gly Leu Glu Trp Ile Gly His Ile Tyr Tyr Ser Gly Ser Thr Asn
100 105 110

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

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

Ala Val Tyr Tyr Cys Ala Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp
145 150 155 160

Phe Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly
165 170 175

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
180 185 190

Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
195 200 205

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Trp
210 215 220

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
225 230 235 240

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
245 250 255

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

Asp Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr Ser His
275 280 285

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala
290 295 300

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
305 310 315 320

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
325 330 335

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
340 345 350

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
370 375 380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg

405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 655
<211> 522
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 655
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly

50

55

60

Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Asn Cys Thr Val Ser Gly
65 70 75 80

Gly Ser Ile Ser Tyr Tyr Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly
85 90 95

Lys Gly Leu Glu Trp Ile Gly His Val Ile Tyr Ser Gly Thr Thr Asn
100 105 110

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

Lys Asn Gln Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala Asp Thr
130 135 140

Ala Val Tyr Tyr Cys Val Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp
145 150 155 160

Leu Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly
165 170 175

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
180 185 190

Asp Ile Gln Met Thr Gln Ser Pro Ser Ile Leu Ser Ala Ser Val Gly
195 200 205

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Val Ser Ser Trp
210 215 220

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
225 230 235 240

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
245 250 255

Thr Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
260 265 270

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser His
275 280 285

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala
290 295 300

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
305 310 315 320

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
325 330 335

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
340 345 350

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
370 375 380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His

485

490

495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 656

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 656

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
50 55 60

Leu Val Lys Pro Leu Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly
65 70 75 80

Gly Ser Ile Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Asn
85 90 95

Pro Gly Lys Gly Leu Glu Trp Ile Gly Tyr Met Tyr Tyr Ser Gly Ser
100 105 110

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

Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Arg Ser Val Thr Ala Ala

130	135	140														
Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Thr	Arg	Asp	Phe	Gly	Trp	Tyr	Phe	Asp	
145					150					155					160	
Leu	Trp	Gly	Arg	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	
				165					170					175		
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	
			180					185					190			
Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly	
		195					200					205				
Asp	Ser	Ile	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Asp	Ile	Asp	Asn	Tyr	
	210					215					220					
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Thr	Gly	Lys	Val	Pro	Lys	Val	Leu	Ile	
225					230					235					240	
Tyr	Ala	Ala	Ser	Ala	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	
				245					250					255		
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	
			260					265					270			
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Asn	Tyr	Asn	Ser	Gly	Pro	Arg	
		275					280					285				
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Thr	Thr	Thr	Pro	Ala	
	290					295					300					
Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu	Ser	
305					310					315					320	
Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His	Thr	
				325					330					335		
Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro	Leu	Ala	
			340					345					350			

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
370 375 380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 657

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 657

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
50 55 60

Leu Val Lys Pro Ser Gln Ser Leu Ser Leu Thr Cys Ser Val Ser Gly
65 70 75 80

Gly Ser Val Ser Ser Asp Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His
85 90 95

Pro Gly Lys Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Tyr Arg Arg Ile
100 105 110

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

Thr Ser Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala
130 135 140

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Phe Gly Trp Tyr Phe Asp
145 150 155 160

Leu Trp Gly Arg Gly Thr Leu Val Ala Val Ser Ser Gly Gly Gly Gly
165 170 175

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
180 185 190

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
195 200 205

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr

210	215	220
Leu Thr Trp Tyr Gln Gln Lys Pro Gly Arg Val Pro Glu Val Leu Ile 225 230 235 240		
Tyr Ala Ala Ser Ala Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly 245 250 255		
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro 260 265 270		
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Ala Pro Arg 275 280 285		
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Thr Thr Thr Pro Ala 290 295 300		
Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser 305 310 315 320		
Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr 325 330 335		
Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala 340 345 350		
Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys 355 360 365		
Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met 370 375 380		
Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe 385 390 395 400		
Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg 405 410 415		
Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn 420 425 430		

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 658

<211> 524

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 658

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Glu Val Glu Leu Val Glu Ser Gly Gly Gly
50 55 60

Met Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
65 70 75 80

Phe Thr Phe Ser Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly
85 90 95

Met Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser Asn Lys
100 105 110

Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
115 120 125

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

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Glu Val Gly Phe Val Gly Ala
145 150 155 160

Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly
165 170 175

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
180 185 190

Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser
195 200 205

Val Gly Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Gly Ile Asn
210 215 220

Ser His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu
225 230 235 240

Leu Ile Tyr Tyr Ala Ser Thr Leu Pro Ser Gly Val Pro Ser Arg Phe
245 250 255

Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Thr Ser Leu
260 265 270

Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn His Tyr
275 280 285

Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Asp Ile Asn Thr Thr Thr

290

295

300

Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro
305 310 315 320

Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val
325 330 335

His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
340 345 350

Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu
355 360 365

Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro
370 375 380

Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys
385 390 395 400

Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe
405 410 415

Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu
420 425 430

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
435 440 445

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
450 455 460

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
465 470 475 480

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
485 490 495

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
500 505 510

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 659

<211> 522

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 659

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu
35 40 45

Cys Gly Gly Gly Gly Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
50 55 60

Leu Val Gln Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly
65 70 75 80

Gly Ser Ile Ser Tyr Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly
85 90 95

Lys Gly Leu Glu Trp Ile Gly Asn Ile Asn Tyr Met Gly Asn Thr Ile
100 105 110

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

Lys Asp Gln Phe Ser Leu Lys Leu Thr Ser Val Ser Ala Ala Asp Thr
130 135 140

Ala Val Tyr Tyr Cys Val Arg Ala Glu Gly Ser Leu Asp Ala Phe Asp
145 150 155 160

Phe Trp Gly Gln Gly Thr Leu Val Ala Val Ser Leu Gly Gly Gly Gly
165 170 175

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
180 185 190

Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
195 200 205

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
210 215 220

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
225 230 235 240

Tyr Lys Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
245 250 255

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
260 265 270

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Cys
275 280 285

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Thr Thr Thr Pro Ala
290 295 300

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
305 310 315 320

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
325 330 335

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
340 345 350

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
355 360 365

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met

370

375

380

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
385 390 395 400

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
405 410 415

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
420 425 430

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
435 440 445

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
450 455 460

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
465 470 475 480

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
485 490 495

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
500 505 510

Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 660

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 660

Asn Ser Glu Leu Leu Ser Leu Ile Asn Asp Met Pro Ile Thr Asn Asp
1 5 10 15

Gln Lys Lys Leu Met Ser Asn Asn

20

<210> 661

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 661

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

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

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

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

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

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

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

<210> 662

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 662

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30

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

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

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

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

Ala Arg Asp Glu Val Gly Phe Val Gly Ala Phe Asp Ile Trp Gly Gln
100 105 110

Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 663

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 663

Asp Tyr Gly Met His
1 5

<210> 664

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 664

Gly Phe Thr Phe Ser Asp Tyr

1 5

<210> 665
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 665
Gly Phe Thr Phe Ser Asp Tyr Gly Met His
1 5 10

<210> 666
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 666
Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 667
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 667
Trp Tyr Asp Gly Ser Asn
1 5

<210> 668
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 668

Asp Glu Val Gly Phe Val Gly Ala Phe Asp Ile
1 5 10

<210> 669

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 669

Arg Ala Ser Gln Gly Ile Asn Ser His Leu Ala
1 5 10

<210> 670

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 670

Tyr Ala Ser Thr Leu Pro Ser
1 5

<210> 671

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 671

Gln Gln Leu Asn His Tyr Pro Ile Thr
1 5

<210> 672

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 672

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe
35 40 45

Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg Gln Pro Pro
50 55 60

Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys
65 70 75 80

Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr
85 90 95

Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp
100 105 110

Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr Asp Ile Ser
115 120 125

Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser Val Ser Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145 150 155 160

Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser
165 170 175

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp
180 185 190

Ile Ser Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro
195 200 205

Lys Arg Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser
210 215 220

Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser
225 230 235 240

Ser Leu Leu Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Leu Asn
245 250 255

Ser Phe Pro Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Asn Thr
260 265 270

Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser
275 280 285

Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly
290 295 300

Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp
305 310 315 320

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
325 330 335

Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys
340 345 350

Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys
355 360 365

Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val
370 375 380

Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn
385 390 395 400

Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val

405

410

415

Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg
420 425 430

Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys
435 440 445

Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg
450 455 460

Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys
465 470 475 480

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 673

<211> 491

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 673

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Glu Leu Val Glu Ser Gly Gly Gly Met
20 25 30

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Met
50 55 60

Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser

85										90					95				
Lys	Asn	Thr	Val	Phe	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr				
			100					105					110						
Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Glu	Val	Gly	Phe	Val	Gly	Ala	Phe				
		115					120					125							
Asp	Ile	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly				
	130					135					140								
Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly				
145					150					155					160				
Ser	Asp	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ser	Phe	Leu	Ser	Ala	Ser	Val				
			165						170					175					
Gly	Asp	Arg	Val	Ile	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Asn	Ser				
			180					185					190						
His	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu				
		195					200					205							
Ile	Tyr	Tyr	Ala	Ser	Thr	Leu	Pro	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser				
	210					215					220								
Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	Gln				
225					230					235					240				
Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Leu	Asn	His	Tyr	Pro				
			245						250					255					
Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	Thr	Thr	Thr	Pro				
			260					265					270						
Ala	Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro	Leu				
		275					280					285							
Ser	Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val	His				
	290					295					300								

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
305 310 315 320

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
325 330 335

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
340 345 350

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
355 360 365

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser
370 375 380

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
385 390 395 400

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
405 410 415

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
420 425 430

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
435 440 445

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
450 455 460

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
465 470 475 480

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
485 490

<210> 674

<211> 531

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 674

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

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

Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe
35 40 45

Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg Gln Pro Pro
50 55 60

Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys
65 70 75 80

Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr
85 90 95

Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp
100 105 110

Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr Asp Ile Ser
115 120 125

Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser Val Ser Ser
130 135 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
145 150 155 160

Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ala Met Ser
165 170 175

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp
180 185 190

Ile Ser Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro

195	200	205
Lys Arg Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser 210 215 220		
Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser 225 230 235 240		
Ser Leu Leu Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Leu Asn 245 250 255		
Ser Phe Pro Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Asn Gly 260 265 270		
Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser 275 280 285		
Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly 290 295 300		
Gly Gly Gly Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala 305 310 315 320		
Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg 325 330 335		
Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys 340 345 350		
Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu 355 360 365		
Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu 370 375 380		
Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln 385 390 395 400		
Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly 405 410 415		

Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr
420 425 430

Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg
435 440 445

Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met
450 455 460

Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu
465 470 475 480

Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys
485 490 495

Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu
500 505 510

Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu
515 520 525

Pro Pro Arg
530

<210> 675

<211> 528

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 675

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Glu Leu Val Glu Ser Gly Gly Gly Met
20 25 30

Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Asp Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Met
50 55 60

Gly Leu Glu Trp Val Thr Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr
65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser
85 90 95

Lys Asn Thr Val Phe Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asp Glu Val Gly Phe Val Gly Ala Phe
115 120 125

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val
165 170 175

Gly Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Gly Ile Asn Ser
180 185 190

His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
195 200 205

Ile Tyr Tyr Ala Ser Thr Leu Pro Ser Gly Val Pro Ser Arg Phe Ser
210 215 220

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Thr Ser Leu Gln
225 230 235 240

Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn His Tyr Pro
245 250 255

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Gly Ser Gly Gly

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

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
485 490 495

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
500 505 510

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 676

<211> 574

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 676

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
35 40 45

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

Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Ala Arg Met
65 70 75 80

Gly Val Thr Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu
85 90 95

Ala His Ile Phe Ser Asn Asp Glu Lys Ser Tyr Ser Thr Ser Leu Lys
100 105 110

Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Thr Gln Val Val Leu
115 120 125

Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys Ala
130 135 140

Arg Ile Arg Asp Tyr Tyr Asp Ile Ser Ser Tyr Tyr Asp Tyr Trp Gly
145 150 155 160

Gln Gly Thr Leu Val Ser Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
165 170 175

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln
180 185 190

Met Thr Gln Ser Pro Ser Ala Met Ser Ala Ser Val Gly Asp Arg Val
195 200 205

Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Ala Trp
210 215 220

Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Arg Leu Ile Tyr Ala Ala
225 230 235 240

Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser
245 250 255

Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Leu Pro Glu Asp Phe
260 265 270

Ala Thr Tyr Tyr Cys Leu Gln Leu Asn Ser Phe Pro Phe Thr Phe Gly
275 280 285

Gly Gly Thr Lys Val Glu Ile Asn Gly Ser Gly Gly Gly Gly Ser Cys
290 295 300

Pro Tyr Ser Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Glu Leu
305 310 315 320

Pro Thr Gln Gly Thr Phe Ser Asn Val Ser Thr Asn Val Ser Pro Ala
325 330 335

Lys Pro Thr Thr Thr Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr

340					345					350					
Thr	Thr	Pro	Ala	Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser
		355					360					365			
Gln	Pro	Leu	Ser	Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly
	370					375					380				
Ala	Val	His	Thr	Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp
385					390					395					400
Ala	Pro	Leu	Ala	Gly	Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val	Ile
				405					410					415	
Thr	Leu	Tyr	Cys	Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys
			420					425					430		
Gln	Pro	Phe	Met	Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys
		435					440					445			
Ser	Cys	Arg	Phe	Pro	Glu	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu	Arg	Val
	450					455					460				
Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn
465					470					475					480
Gln	Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp	Val
				485					490					495	
Leu	Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro	Arg
			500					505					510		
Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys
		515					520					525			
Met	Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg
	530					535					540				
Gly	Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys
545					550					555					560

Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
565 570

<210> 677

<211> 571

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 677

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
35 40 45

Glu Leu Val Glu Ser Gly Gly Gly Met Val Gln Pro Gly Arg Ser Leu
50 55 60

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr Gly Met
65 70 75 80

His Trp Val Arg Gln Ala Pro Gly Met Gly Leu Glu Trp Val Thr Val
85 90 95

Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys Gly
100 105 110

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val Phe Leu Gln
115 120 125

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
130 135 140

Asp Glu Val Gly Phe Val Gly Ala Phe Asp Ile Trp Gly Gln Gly Thr
145 150 155 160

Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
165 170 175

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln
180 185 190

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

Cys Arg Ala Ser Gln Gly Ile Asn Ser His Leu Ala Trp Tyr Gln Gln
210 215 220

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

Pro Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu
245 250 255

Phe Thr Leu Thr Val Thr Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr
260 265 270

Tyr Cys Gln Gln Leu Asn His Tyr Pro Ile Thr Phe Gly Gln Gly Thr
275 280 285

Arg Leu Glu Ile Lys Gly Ser Gly Gly Gly Gly Ser Cys Pro Tyr Ser
290 295 300

Asn Pro Ser Leu Cys Ser Gly Gly Gly Gly Ser Glu Leu Pro Thr Gln
305 310 315 320

Gly Thr Phe Ser Asn Val Ser Thr Asn Val Ser Pro Ala Lys Pro Thr
325 330 335

Thr Thr Ala Cys Pro Tyr Ser Asn Pro Ser Leu Cys Thr Thr Thr Pro
340 345 350

Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu
355 360 365

Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His

370

375

380

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
385 390 395 400

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
405 410 415

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
420 425 430

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
435 440 445

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser
450 455 460

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
465 470 475 480

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
485 490 495

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
500 505 510

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
515 520 525

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
530 535 540

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
545 550 555 560

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
565 570

<210> 678

<211> 532

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 678

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Thr Leu Lys Glu Ser Gly
35 40 45

Pro Val Leu Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val
50 55 60

Ser Gly Phe Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg
65 70 75 80

Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn
85 90 95

Asp Glu Lys Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser
100 105 110

Lys Asp Thr Ser Lys Thr Gln Val Val Leu Thr Met Thr Asn Met Asp
115 120 125

Pro Val Asp Thr Ala Thr Tyr Tyr Cys Ala Arg Ile Arg Asp Tyr Tyr
130 135 140

Asp Ile Ser Ser Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Ser
145 150 155 160

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
165 170 175

Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser
180 185 190

Ala Met Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala
195 200 205

Ser Gln Asp Ile Ser Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly
210 215 220

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

Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu
245 250 255

Thr Ile Ser Ser Leu Leu Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu
260 265 270

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

Ile Asn Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys
290 295 300

Gly Gly Gly Gly Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro
305 310 315 320

Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys
325 330 335

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala
340 345 350

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu
355 360 365

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
370 375 380

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
385 390 395 400

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly

405

410

415

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
420 425 430

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
435 440 445

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
450 455 460

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
465 470 475 480

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
485 490 495

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
500 505 510

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
515 520 525

Leu Pro Pro Arg
530

<210> 679

<211> 529

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 679

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Glu Val Glu Leu Val Glu Ser Gly

35					40					45					
Gly	Gly	Met	Val	Gln	Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala
50						55					60				
Ser	Gly	Phe	Thr	Phe	Ser	Asp	Tyr	Gly	Met	His	Trp	Val	Arg	Gln	Ala
65					70					75				80	
Pro	Gly	Met	Gly	Leu	Glu	Trp	Val	Thr	Val	Ile	Trp	Tyr	Asp	Gly	Ser
				85					90					95	
Asn	Lys	Tyr	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg
			100					105					110		
Asp	Asn	Ser	Lys	Asn	Thr	Val	Phe	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala
		115					120					125			
Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Glu	Val	Gly	Phe	Val
	130					135					140				
Gly	Ala	Phe	Asp	Ile	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser
145					150					155					160
Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly
				165					170					175	
Gly	Gly	Gly	Ser	Asp	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ser	Phe	Leu	Ser
			180					185					190		
Ala	Ser	Val	Gly	Asp	Arg	Val	Ile	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly
		195					200					205			
Ile	Asn	Ser	His	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro
	210					215					220				
Lys	Leu	Leu	Ile	Tyr	Tyr	Ala	Ser	Thr	Leu	Pro	Ser	Gly	Val	Pro	Ser
225					230					235					240
Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Val	Thr
				245					250					255	

Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn
260 265 270

His Tyr Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Gly
275 280 285

Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro Ser Leu Cys Gly Gly Gly
290 295 300

Gly Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
305 310 315 320

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
325 330 335

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
340 345 350

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser
355 360 365

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
370 375 380

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
385 390 395 400

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu
405 410 415

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
420 425 430

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
435 440 445

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
450 455 460

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln

465 470 475 480

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
 485 490 495

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr
 500 505 510

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
 515 520 525

Arg

<210> 680
 <211> 527
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 680
 Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Gly Gly Gly Ser Cys Pro Tyr Ser Asn Pro
 20 25 30

Ser Leu Cys Gly Gly Gly Gly Ser Gln Val Thr Leu Lys Glu Ser Gly
 35 40 45

Pro Val Leu Val Lys Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val
 50 55 60

Ser Gly Phe Ser Leu Ser Asn Ala Arg Met Gly Val Thr Trp Ile Arg
 65 70 75 80

Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn
 85 90 95

Asp Glu Lys Ser Tyr Ser Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser

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

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
325 330 335

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
340 345 350

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
355 360 365

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
370 375 380

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
385 390 395 400

Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg
405 410 415

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

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
435 440 445

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
450 455 460

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
465 470 475 480

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
485 490 495

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
500 505 510

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520 525

<210> 681

<211> 524
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 681

Met	Ala	Leu	Pro	Val	Thr	Ala	Leu	Leu	Leu	Pro	Leu	Ala	Leu	Leu	Leu
1				5				10					15		

His	Ala	Ala	Arg	Pro	Gly	Gly	Gly	Gly	Ser	Cys	Pro	Tyr	Ser	Asn	Pro
			20					25					30		

Ser	Leu	Cys	Gly	Gly	Gly	Gly	Ser	Glu	Val	Glu	Leu	Val	Glu	Ser	Gly
		35					40					45			

Gly	Gly	Met	Val	Gln	Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala
	50					55					60				

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

Pro	Gly	Met	Gly	Leu	Glu	Trp	Val	Thr	Val	Ile	Trp	Tyr	Asp	Gly	Ser
			85						90					95	

Asn	Lys	Tyr	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg
			100					105					110		

Asp	Asn	Ser	Lys	Asn	Thr	Val	Phe	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala
		115					120					125			

Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Glu	Val	Gly	Phe	Val
	130					135					140				

Gly	Ala	Phe	Asp	Ile	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser
145					150					155				160	

Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly
				165					170					175	

Gly	Gly	Gly	Ser	Asp	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ser	Phe	Leu	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

180					185					190					
Ala	Ser	Val	Gly	Asp	Arg	Val	Ile	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly
		195					200					205			
Ile	Asn	Ser	His	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro
	210					215					220				
Lys	Leu	Leu	Ile	Tyr	Tyr	Ala	Ser	Thr	Leu	Pro	Ser	Gly	Val	Pro	Ser
225					230					235					240
Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Val	Thr
				245					250					255	
Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Leu	Asn
			260					265					270		
His	Tyr	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	Gly
		275					280					285			
Gly	Gly	Gly	Ser	Cys	Pro	Tyr	Ser	Asn	Pro	Ser	Leu	Cys	Thr	Thr	Thr
	290					295					300				
Pro	Ala	Pro	Arg	Pro	Pro	Thr	Pro	Ala	Pro	Thr	Ile	Ala	Ser	Gln	Pro
305					310					315					320
Leu	Ser	Leu	Arg	Pro	Glu	Ala	Cys	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Val
				325					330					335	
His	Thr	Arg	Gly	Leu	Asp	Phe	Ala	Cys	Asp	Ile	Tyr	Ile	Trp	Ala	Pro
			340					345					350		
Leu	Ala	Gly	Thr	Cys	Gly	Val	Leu	Leu	Leu	Ser	Leu	Val	Ile	Thr	Leu
		355					360					365			
Tyr	Cys	Lys	Arg	Gly	Arg	Lys	Lys	Leu	Leu	Tyr	Ile	Phe	Lys	Gln	Pro
	370					375					380				
Phe	Met	Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser	Cys
385					390					395					400

Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe
405 410 415

Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu
420 425 430

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
435 440 445

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
450 455 460

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
465 470 475 480

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
485 490 495

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
500 505 510

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
515 520

<210> 682
<211> 40
<212> PRT
<213> Homo sapiens

<400> 682

Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro
1 5 10 15

Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu
20 25 30

Glu Glu Glu Gly Gly Cys Glu Leu
35 40

<210> 683
<211> 112

<212> PRT

<213> Homo sapiens

<400> 683

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Lys Gln Gly
1 5 10 15

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30

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

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110