

SEQUENCE LISTING

<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> DLL3-TARGETING MULTISPECIFIC ANTIGEN-BINDING MOLECULES AND USES THEREOF

<130> C1-A2006P

<150> JP 2020-062326

<151> 2020-03-31

<160> 320

<170> PatentIn version 3.5

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Val Leu Pro Ala
100 105 110

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

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

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

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

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

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

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

Tyr Cys His Tyr Ile His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

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

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

Ala Gln Ile Lys Asp Lys Tyr Asn Ala Tyr Ala Thr Tyr Tyr Ala Pro
50 55 60

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Phe Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Val Phe Ser Asn Val
20 25 30

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

Ala Gln Ile Lys Asp Lys Trp Asn Ala Tyr Ala Ala Tyr Tyr Ala Pro
50 55 60

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

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

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

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

Cys Pro Gln Tyr Pro Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys
50 55 60

Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp
65 70 75 80

His Leu Ser Leu Lys Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr
85 90 95

Val Cys Tyr Pro Arg Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu
100 105 110

Tyr Leu Arg Ala Arg Val Cys Glu Asn Cys Met Glu Met Asp Val Met
115 120 125

Ser Val Ala Thr Ile Val Ile Val Asp Ile Cys Ile Thr Gly Gly Leu
130 135 140

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

Pro Val Thr Arg Gly Ala Gly Ala Gly Gly Arg Gln Arg Gly Gln Asn
165 170 175

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

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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<400> 10

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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<400> 11

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

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

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

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

Ala Gln Ile Lys Asp Lys Trp Asn Ala Tyr Ala Asp Tyr Tyr Ala Pro
50 55 60

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

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

Tyr Cys His Tyr Ile His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Ile Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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<400> 13

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Thr Leu Leu Pro Ala
 100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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Asn Ala Trp Met His
1 5

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Asn Val Trp Met His
1 5

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Asn Val Trp Met His
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Asn Val Trp Phe His
1 5

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Asn Val Trp Met His
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Asn Val Trp Phe His
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<400> 21

Ser Pro Cys Pro Pro Asn Ser Phe Ser Ser Ala Gly Gly Gln Arg Thr
1 5 10 15

Cys Asp Ile Cys Arg Gln Cys Lys Gly Val Phe Arg Thr Arg Lys Glu
20 25 30

Cys Ser Ser Thr Ser Asn Ala Glu Cys Asp Cys Thr Pro Gly Phe His
35 40 45

Cys Leu Gly Ala Gly Cys Ser Met Cys Glu Gln Asp Cys Lys Gln Gly
50 55 60

Gln Glu Leu Thr Lys Lys Gly Cys
65 70

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Asn Thr Trp Phe His
1 5

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<400> 23

Asn Val Trp Phe His
1 5

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Asn Val Trp Phe His
1 5

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Asn Val Trp Phe His
1 5

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Asn Val Trp Phe His
1 5

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Asn Val Trp Phe His
1 5

<210> 28

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<400> 28

Asn Val Trp Phe His
1 5

<210> 29

<211> 19

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<400> 29

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

Val Lys Gly

<210> 30
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<400> 30

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

Val Lys Gly

<210> 31
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<400> 31

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

Val Lys Gly

<210> 32
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<400> 32

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

Val Lys Gly

<210> 33
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<400> 33

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

Val Lys Gly

<210> 34
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<400> 34

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

Val Lys Gly

<210> 35
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<400> 35

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

Glu Gln Asp Cys Lys Gln Gly Gln Glu Leu Thr Lys Lys Gly Cys
20 25 30

<210> 36

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<400> 36

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

Val Lys Gly

<210> 37

<211> 19

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<400> 37

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

Val Lys Glu

<210> 38

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<400> 38

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

Val Glu Gly

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<400> 39

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

Val Glu Gly

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<400> 40

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

Val Lys Glu

<210> 41
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<400> 41

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

Val Lys Gly

<210> 42
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<400> 42

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

Val Lys Gly

<210> 43
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<400> 43

Val	His	Tyr	Ala	Ser	Ala	Ser	Thr	Val	Leu	Pro	Ala	Phe	Gly	Val	Asp
1				5				10						15	

Ala

<210> 44
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<400> 44

Val	His	Tyr	Ala	Ser	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Phe	Gly	Val	Asp
1				5				10						15	

Ala

<210> 45
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<400> 45

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

Ala

<210> 46
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<400> 46

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Phe Gly Val Asp
1 5 10 15

Ala

<210> 47

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<400> 47

Ile His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Ile Asp
1 5 10 15

Ala

<210> 48

<211> 17

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<400> 48

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 49

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<400> 49

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

Asn Arg Asn Gln Ile Cys Ser Pro Cys Pro Pro Asn Ser Phe Ser Ser
20 25 30

Ala Gly Gly Gln Arg Thr Cys Asp Ile Cys Arg Gln Cys Lys Gly Val
35 40 45

Phe Arg Thr Arg Lys Glu Cys Ser Ser Thr Ser Asn Ala Glu Cys
50 55 60

<210> 50

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<400> 50

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 51

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<400> 51

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 52
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<400> 52

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 53
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<400> 53

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 54
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<400> 54

Ile	His	Tyr	Ala	Ser	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Glu	Gly	Ile	Asp
1				5				10						15	

Ala

<210> 55

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<400> 55

Val	His	Tyr	Ala	Ala	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Glu	Gly	Val	Asp
1				5				10						15	

Ala

<210> 56

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<400> 56

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

Ala

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<400> 57

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 Gln Ala Ser Gln Glu Leu Val His Met
20 25 30

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

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

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

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

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

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<400> 58

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 Gln Pro Ser Gln Glu Val Val His Met
20 25 30

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

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

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

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

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

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<400> 59

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 Gln Pro Ser Gln Glu Val Val His Met
20 25 30

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

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

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

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

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

<210> 60

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

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<400> 60

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 Gln Pro Ser Gln Glu Val Val His Met
20 25 30

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

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

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

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

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

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

<220>
<223> an artificially synthesized sequence

<400> 61

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 Gln Pro Ser Glu Glu Val Val His Met
20 25 30

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

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

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

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

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

<210> 62
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 62

Gln Ala Ser Gln Glu Leu Val His Met Asn Arg Asn Thr Tyr Leu His
1 5 10 15

<210> 63
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 63

Gln	Pro	Ser	Gln	Glu	Val	Val	His	Met	Asn	Arg	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 64
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 64

Gln	Pro	Ser	Gln	Glu	Val	Val	His	Met	Asn	Asn	Val	Val	Tyr	Leu	His
1				5					10					15	

<210> 65
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 65

Gln	Pro	Ser	Gln	Glu	Val	Val	His	Met	Asn	Arg	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 66
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 66

Gln	Pro	Ser	Glu	Glu	Val	Val	His	Met	Asn	Arg	Asn	Thr	Tyr	Leu	His
1				5					10					15	

<210> 67

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 67

Lys	Val	Ser	Asn	Arg	Phe	Pro
1			5			

<210> 68

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 68

Lys	Val	Ser	Asn	Arg	Phe	Pro
1			5			

<210> 69

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 69

Lys	Val	Ser	Asn	Arg	Phe	Pro
1			5			

<210> 70
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 70

Lys Val Ser Asn Val Phe Pro
1 5

<210> 71
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 71

Lys Val Ser Asn Leu Phe Pro
1 5

<210> 72
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 72

Ala Gln Gly Thr Ser Val Pro Phe Thr
1 5

<210> 73
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 73

Ala Gln Gly Thr Ser His Pro Phe Thr
1 5

<210> 74

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 74

Ala Gln Gly Thr Ser His Pro Phe Thr
1 5

<210> 75

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 75

Ala Gln Gly Thr His His Pro Phe Thr
1 5

<210> 76

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 76

Ala Gln Gly Thr His His Pro Phe Thr
1 5

<210> 77

<211> 122

<212> PRT
<213> Artificial Sequence

<220>
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<400> 77

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

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

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

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

Tyr Cys Arg Tyr Val His Tyr Ala Ala Gly Tyr Gly Val Asp Ile Trp
100 105 110

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

<210> 78
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 78

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 Pro Leu Val His Ser
20 25 30

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

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

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

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

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

<210> 79
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 79

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

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

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

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

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

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

Arg Asp Tyr Gly Pro Gly Asn Tyr Asp Trp Tyr Phe Asp Leu Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 80
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 80

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

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

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

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

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

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

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

<210> 81
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 81

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 82
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 82

Asn Val Trp Phe His
1 5

<210> 83
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 83

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

Val Lys Gly

<210> 84
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 84

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 85
<211> 330
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 85

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225 230 235 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 86

<211> 326

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 86

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

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

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
100 105 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225 230 235 240

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

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 87
<211> 377
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 87

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Thr Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Leu Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro
100 105 110

Arg Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg
115 120 125

Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys
130 135 140

Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro
145 150 155 160

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
165 170 175

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
180 185 190

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr
195 200 205

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
210 215 220

Gln Tyr Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His
225 230 235 240

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
245 250 255

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

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
275 280 285

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
290 295 300

Ser Asp Ile Ala Val Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Asn
305 310 315 320

Tyr Asn Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
325 330 335

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile
340 345 350

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln
355 360 365

Lys Ser Leu Ser Leu Ser Pro Gly Lys
370 375

<210> 88

<211> 327

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 88

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro
100 105 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
130 135 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145 150 155 160

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
165 170 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
180 185 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
195 200 205

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
210 215 220

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225 230 235 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
245 250 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
260 265 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
275 280 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
290 295 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305 310 315 320

Leu Ser Leu Ser Leu Gly Lys
325

<210> 89

<211> 88

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 89

Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Leu
1 5 10 15

Leu Leu Met Leu Ala Gln Pro Ala Met Ala Arg Ala Asp Pro Cys Ala
20 25 30

Ala Arg Pro Cys Ala His Gly Gly Arg Cys Tyr Ala His Phe Ser Gly
35 40 45

Leu Val Cys Ala Cys Ala Pro Gly Tyr Met Gly Ala Arg Cys Glu Phe
50 55 60

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

Leu Arg Pro Gly Asp Pro Gln Arg
85

<210> 90

<211> 618

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 90

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

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

Gln Ile His Ser Phe Gly Pro Gly Pro Gly Pro Gly Ala Pro Arg Ser
35 40 45

Pro Cys Ser Ala Arg Leu Pro Cys Arg Leu Phe Phe Arg Val Cys Leu
50 55 60

Lys Pro Gly Leu Ser Glu Glu Ala Ala Glu Ser Pro Cys Ala Leu Gly
65 70 75 80

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

Pro Ala Pro Asp Leu Pro Leu Pro Asp Gly Leu Leu Gln Val Pro Phe
100 105 110

Arg Asp Ala Trp Pro Gly Thr Phe Ser Phe Ile Ile Glu Thr Trp Arg
115 120 125

Glu Glu Leu Gly Asp Gln Ile Gly Gly Pro Ala Trp Ser Leu Leu Ala
130 135 140

Arg Val Ala Gly Arg Arg Arg Leu Ala Ala Gly Gly Pro Trp Ala Arg
145 150 155 160

Asp Ile Gln Arg Ala Gly Ala Trp Glu Leu Arg Phe Ser Tyr Arg Ala
165 170 175

Arg Cys Glu Pro Pro Ala Val Gly Thr Ala Cys Thr Arg Leu Cys Arg
180 185 190

Pro Arg Ser Ala Pro Ser Arg Cys Gly Pro Gly Leu Arg Pro Cys Ala
195 200 205

Pro Leu Glu Asp Glu Cys Glu Ala Pro Leu Val Cys Arg Ala Gly Cys
210 215 220

Ser Pro Glu His Gly Phe Cys Glu Gln Pro Gly Glu Cys Arg Cys Leu
225 230 235 240

Glu Gly Trp Thr Gly Pro Leu Cys Thr Val Pro Val Ser Thr Ser Ser
245 250 255

Cys Leu Ser Pro Arg Gly Pro Ser Ser Ala Thr Thr Gly Cys Leu Val
260 265 270

Pro Gly Pro Gly Pro Cys Asp Gly Asn Pro Cys Ala Asn Gly Gly Ser
275 280 285

Cys Ser Glu Thr Pro Arg Ser Phe Glu Cys Thr Cys Pro Arg Gly Phe
290 295 300

Tyr Gly Leu Arg Cys Glu Val Ser Gly Val Thr Cys Ala Asp Gly Pro
305 310 315 320

Cys Phe Asn Gly Gly Leu Cys Val Gly Gly Ala Asp Pro Asp Ser Ala
325 330 335

Tyr Ile Cys His Cys Pro Pro Gly Phe Gln Gly Ser Asn Cys Glu Lys
340 345 350

Arg Val Asp Arg Cys Ser Leu Gln Pro Cys Arg Asn Gly Gly Leu Cys
355 360 365

Leu Asp Leu Gly His Ala Leu Arg Cys Arg Cys Arg Ala Gly Phe Ala
370 375 380

Gly Pro Arg Cys Glu His Asp Leu Asp Asp Cys Ala Gly Arg Ala Cys
385 390 395 400

Ala Asn Gly Gly Thr Cys Val Glu Gly Gly Gly Ala His Arg Cys Ser
405 410 415

Cys Ala Leu Gly Phe Gly Gly Arg Asp Cys Arg Glu Arg Ala Asp Pro
420 425 430

Cys Ala Ala Arg Pro Cys Ala His Gly Gly Arg Cys Tyr Ala His Phe
435 440 445

Ser Gly Leu Val Cys Ala Cys Ala Pro Gly Tyr Met Gly Ala Arg Cys
450 455 460

Glu Phe Pro Val His Pro Asp Gly Ala Ser Ala Leu Pro Ala Ala Pro
465 470 475 480

Pro Gly Leu Arg Pro Gly Asp Pro Gln Arg Tyr Leu Leu Pro Pro Ala
485 490 495

Leu Gly Leu Leu Val Ala Ala Gly Val Ala Gly Ala Ala Leu Leu Leu
500 505 510

Val His Val Arg Arg Arg Gly His Ser Gln Asp Ala Gly Ser Arg Leu
515 520 525

Leu Ala Gly Thr Pro Glu Pro Ser Val His Ala Leu Pro Asp Ala Leu
530 535 540

Asn Asn Leu Arg Thr Gln Glu Gly Ser Gly Asp Gly Pro Ser Ser Ser
545 550 555 560

Val Asp Trp Asn Arg Pro Glu Asp Val Asp Pro Gln Gly Ile Tyr Val
565 570 575

Ile Ser Ala Pro Ser Ile Tyr Ala Arg Glu Val Ala Thr Pro Leu Phe
580 585 590

Pro Pro Leu His Thr Gly Arg Ala Gly Gln Arg Gln His Leu Leu Phe
595 600 605

Pro Tyr Pro Ser Ser Ile Leu Ser Val Lys
610 615

<210> 91

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 91

Gly Gly Gly Ser

1

<210> 92
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 92

Ser Gly Gly Gly
1

<210> 93
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 93

Gly Gly Gly Gly Ser
1 5

<210> 94
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 94

Ser Gly Gly Gly Gly
1 5

<210> 95
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 95

Gly Gly Gly Gly Gly Ser
1 5

<210> 96

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 96

Ser Gly Gly Gly Gly Gly
1 5

<210> 97

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 97

Gly Gly Gly Gly Gly Gly Ser
1 5

<210> 98

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 98

Ser Gly Gly Gly Gly Gly Gly
1 5

<210> 99
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 99

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe
1 5 10 15

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
35 40 45

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

Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val
65 70 75 80

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
85 90 95

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

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
115 120 125

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

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
145 150 155 160

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

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
180 185 190

Gln Glu Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
195 200 205

Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
210 215 220

<210> 100

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 100

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe
1 5 10 15

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
35 40 45

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

Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val
65 70 75 80

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
85 90 95

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

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
115 120 125

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

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
145 150 155 160

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

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
180 185 190

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
195 200 205

Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
210 215 220

<210> 101
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
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<400> 101

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

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

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

Ala Gln Ile Lys Asp Lys Trp Asn Ala Tyr Ala Ala Tyr Tyr Ala Pro
50 55 60

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

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

Tyr Cys His Tyr Ile His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Phe Gly Ile Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 102

<211> 212

<212> PRT

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<220>

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<400> 102

Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr Gln Thr Pro Tyr Lys
1 5 10 15

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

Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys Asn Ile Gly Gly Asp
35 40 45

Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp His Leu Ser Leu Lys
50 55 60

Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr Val Cys Tyr Pro Arg
65 70 75 80

Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu Tyr Leu Arg Ala Arg
85 90 95

Val Gly Ser Ala Asp Asp Ala Lys Lys Asp Ala Ala Lys Lys Asp Asp
100 105 110

Ala Lys Lys Asp Asp Ala Lys Lys Asp Gly Ser Gln Ser Ile Lys Gly
115 120 125

Asn His Leu Val Lys Val Tyr Asp Tyr Gln Glu Asp Gly Ser Val Leu
130 135 140

Leu Thr Cys Asp Ala Glu Ala Lys Asn Ile Thr Trp Phe Lys Asp Gly
145 150 155 160

Lys Met Ile Gly Phe Leu Thr Glu Asp Lys Lys Lys Trp Asn Leu Gly
165 170 175

Ser Asn Ala Lys Asp Pro Arg Gly Met Tyr Gln Cys Lys Gly Ser Gln
180 185 190

Asn Lys Ser Lys Pro Leu Gln Val Tyr Tyr Arg Met Asp Tyr Lys Asp
195 200 205

Asp Asp Asp Lys
210

<210> 103
<211> 189
<212> PRT
<213> Artificial Sequence

<220>
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<400> 103

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

Asn Arg Asn Gln Ile Cys Ser Pro Cys Pro Pro Asn Ser Phe Ser Ser
20 25 30

Ala Gly Gly Gln Arg Thr Cys Asp Ile Cys Arg Gln Cys Lys Gly Val
35 40 45

Phe Arg Thr Arg Lys Glu Cys Ser Ser Thr Ser Asn Ala Glu Cys Asp
50 55 60

Cys Thr Pro Gly Phe His Cys Leu Gly Ala Gly Cys Ser Met Cys Glu
65 70 75 80

Gln Asp Cys Lys Gln Gly Gln Glu Leu Thr Lys Lys Gly Cys Lys Asp
85 90 95

Cys Cys Phe Gly Thr Phe Asn Asp Gln Lys Arg Gly Ile Cys Arg Pro
100 105 110

Trp Thr Asn Cys Ser Leu Asp Gly Lys Ser Val Leu Val Asn Gly Thr
115 120 125

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

Gly Ala Ser Ser Val Thr Pro Pro Ala Pro Ala Arg Glu Pro Gly His
145 150 155 160

Ser Pro Gln His His His His His His Gly Gly Gly Gly Ser Gly Leu
165 170 175

Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
180 185

<210> 104

<211> 128

<212> PRT
<213> Artificial Sequence

<220>
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<400> 104

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

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

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

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

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

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

Tyr Cys His Tyr Ile His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Phe Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 105
<211> 22
<212> PRT
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<220>
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<400> 105

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

Asn Arg Asn Gln Ile Cys
20

<210> 106

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

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<400> 106

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Phe Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 107
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
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<400> 107

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Phe Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 108
<211> 220
<212> PRT
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<400> 108

Cys Pro Pro Cys Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe
1 5 10 15

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
35 40 45

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

Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val
65 70 75 80

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
85 90 95

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

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
115 120 125

Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val
130 135 140

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
145 150 155 160

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

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
180 185 190

Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 195 200 205

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 210 215 220

<210> 109
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 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 109

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe
 1 5 10 15

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 35 40 45

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

Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val
 65 70 75 80

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 85 90 95

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

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
 115 120 125

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

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 145 150 155 160

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

Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 180 185 190

Gln Glu Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
 195 200 205

Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
 210 215 220

<210> 110
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<220>
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<400> 110

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 111

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

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<400> 111

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe
1 5 10 15

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
35 40 45

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

Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val
65 70 75 80

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
85 90 95

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

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
115 120 125

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

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
145 150 155 160

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

Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
180 185 190

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His
195 200 205

Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
210 215 220

<210> 112
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<220>
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<400> 112

Cys Pro Pro Cys Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe
1 5 10 15

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
20 25 30

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
35 40 45

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

Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val
65 70 75 80

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
85 90 95

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

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
115 120 125

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val
130 135 140

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
145 150 155 160

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

Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
180 185 190

Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
195 200 205

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
210 215 220

<210> 113
<211> 128

<212> PRT
<213> Artificial Sequence

<220>
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<400> 113

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

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

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

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

Tyr Cys Arg Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Phe Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 114
<211> 5
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<400> 114

Asn Val Trp Met His
1 5

<210> 115

<400> 115
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<400> 116
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<210> 117
<211> 5
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<220>
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<400> 117

Asn Thr Trp Met His
1 5

<210> 118

<400> 118
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<210> 119
<211> 5
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<400> 119

Asn Val Trp Phe His
1 5

<210> 120
<211> 5

<212> PRT
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<400> 120

His Val Trp Phe His
1 5

<210> 121

<400> 121
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<210> 122

<400> 122
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<210> 123
<211> 5
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<220>
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<400> 123

Asn Val Trp Phe His
1 5

<210> 124

<400> 124
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<210> 125

<400> 125
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<210> 126
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
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<400> 126

Asn Ala Trp Met His
1 5

<210> 127
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 127

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

Val Lys Gly

<210> 128

<400> 128
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<210> 129

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<210> 130
<211> 19
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<400> 130

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

Val Lys Gly

<210> 131

<400> 131
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<210> 132

<211> 19

<212> PRT

<213> Artificial Sequence

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<400> 132

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

Val Lys Gly

<210> 133

<211> 19

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<400> 133

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

Val Lys Gly

<210> 134

<400> 134
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<210> 135

<400> 135
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<210> 136

<211> 19

<212> PRT

<213> Artificial Sequence

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<400> 136

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

Val Lys Gly

<210> 137

<400> 137
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<210> 138

<400> 138
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<210> 139

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

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<400> 139

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

Val Lys Gly

<210> 140

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

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<400> 140

Ile	His	Tyr	Ala	Ser	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Phe	Gly	Ile	Asp
1				5				10					15		

Ala

<210> 141

<400> 141

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<210> 142

<400> 142

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<210> 143

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

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<400> 143

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

Ala

<210> 144

<400> 144
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<210> 145

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 145

Val	His	Tyr	Ala	Ser	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Phe	Gly	Val	Asp
1				5				10						15	

Ala

<210> 146

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

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<400> 146

Val	His	Tyr	Ala	Ser	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Phe	Gly	Val	Asp
1				5				10						15	

Ala

<210> 147

<400> 147
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<210> 148

<400> 148
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<210> 149
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 149

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
1 5 10 15

Ala

<210> 150

<400> 150
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<210> 151

<400> 151
000

<210> 152
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

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<400> 152

Val	His	Tyr	Ala	Ser	Ala	Ser	Thr	Leu	Leu	Pro	Ala	Phe	Gly	Val	Asp
1				5				10						15	

Ala

<210> 153

<400> 153
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<210> 154

<400> 154
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<210> 155

<400> 155
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<210> 201
<211> 681
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 201

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

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

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

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

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

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

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

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser

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

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
450 455 460

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser

20

25

30

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

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

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

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

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

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

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 130 135 140

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 145 150 155 160

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

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

Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
 195 200 205

Pro Lys Ser Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
 210 215 220

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg Ser Leu
225 230 235 240

Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn Val Trp Phe
245 250 255

His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Gln
260 265 270

Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala Pro Ser Val
275 280 285

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Ile Tyr
290 295 300

Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
305 310 315 320

His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly
325 330 335

Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
340 345 350

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
355 360 365

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

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
385 390 395 400

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
405 410 415

Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln Thr Tyr Ile

420	425	430
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Glu Lys Val		
435	440	445
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala		
450	455	460
Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro		
465	470	475
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val		
485	490	495
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val		
500	505	510
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln		
515	520	525
Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln		
530	535	540
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala		
545	550	555
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro		
565	570	575
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr		
580	585	590
Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser		
595	600	605
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr		
610	615	620

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
625 630 635 640

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe
645 650 655

Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr Thr Arg Lys
660 665 670

Glu Leu Ser Leu Ser Pro
675

<210> 203

<211> 681

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 203

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
225 230 235 240

Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn
245 250 255

Val Trp Phe His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
260 265 270

Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala
275 280 285

Pro Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn

290

295

300

Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val
 305 310 315 320

Tyr Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro
 325 330 335

Ala Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 340 345 350

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
 420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 450 455 460

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
 465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp
580 585 590

Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
645 650 655

Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr
660 665 670

Thr Arg Lys Glu Leu Ser Leu Ser Pro
675 680

<210> 204

<211> 676
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 204

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

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

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

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

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

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

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

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

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

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

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

165

170

175

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

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

Arg Val Glu Pro Lys Ser Cys Gly Gly Gly Gly Ser Gln Val Gln Leu
 210 215 220

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg Ser Leu Arg Leu
 225 230 235 240

Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn Val Trp Phe His Trp
 245 250 255

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Gln Ile Lys
 260 265 270

Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala Pro Ser Val Lys Gly
 275 280 285

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Ile Tyr Leu Gln
 290 295 300

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

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
 325 330 335

Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
 340 345 350

Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
 355 360 365

Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro
370 375 380

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
385 390 395 400

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
405 410 415

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

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Glu Lys Val Glu Pro
435 440 445

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
450 455 460

Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
465 470 475 480

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
485 490 495

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
500 505 510

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Ala
515 520 525

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
530 535 540

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
545 550 555 560

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu

565

570

575

Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr Lys Asn
 580 585 590

Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 595 600 605

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 610 615 620

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 625 630 635 640

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 645 650 655

Ser Val Leu His Glu Ala Leu His Ala His Tyr Thr Arg Lys Glu Leu
 660 665 670

Ser Leu Ser Pro
 675

<210> 205

<211> 671

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 205

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

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

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

35

40

45

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

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

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

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

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

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

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

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

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

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

Arg Val Glu Pro Lys Ser Cys Gln Val Gln Leu Val Glu Ser Gly Gly
 210 215 220

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

Gly Phe Lys Phe Ser Asn Val Trp Phe His Trp Val Arg Gln Ala Pro
245 250 255

Gly Lys Gly Leu Glu Trp Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala
260 265 270

Tyr Ala Ala Tyr Tyr Ala Pro Ser Val Lys Gly Arg Phe Thr Ile Ser
275 280 285

Arg Asp Asp Ser Lys Asn Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys
290 295 300

Thr Glu Asp Thr Ala Val Tyr Tyr Cys His Tyr Val His Tyr Ala Ser
305 310 315 320

Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp Ala Trp Gly Gln Gly
325 330 335

Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
340 345 350

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
355 360 365

Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
370 375 380

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
385 390 395 400

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
405 410 415

Cys Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
420 425 430

Ser Asn Thr Lys Val Asp Glu Lys Val Glu Pro Lys Ser Cys Asp Lys

435		440		445
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro				
450		455		460
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser				
465		470		480
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp				
		485		495
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn				
		500		510
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val				
		515		525
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu				
		530		540
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys				
545		550		560
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr				
		565		575
Leu Pro Pro Cys Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp				
		580		590
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu				
		595		605
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu				
		610		620
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys				
625		630		640

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu
645 650 655

Ala Leu His Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
660 665 670

<210> 206
<211> 226
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 206

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Ser Ser
20 25 30

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

Met Gly Thr Ile Tyr Thr Gly Asp Tyr Ser Thr Asp Tyr Ala Ser Trp
50 55 60

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

Thr Leu Val Thr Val Ser Ser Ala Ser Val Ala Ala Pro Ser Val Phe
115 120 125

Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val
 130 135 140

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
 145 150 155 160

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

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

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val
 195 200 205

Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
 210 215 220

Glu Cys
 225

<210> 207
 <211> 223
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 207

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

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

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

Gly Met Ile Asp Pro Ser Tyr Ser Glu Thr Arg Leu Asn Gln Lys Phe
50 55 60

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

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

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

Thr Val Ser Ser Ala Ser Val Ala Ala Pro Ser Val Phe Ile Phe Pro
115 120 125

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

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

Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp
165 170 175

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

Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln
195 200 205

Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 208

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 208

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

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

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

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

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

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

Arg Lys Glu Leu Ser Leu Ser Pro
 450 455

<210> 209
 <211> 456
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 209

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

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

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

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

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

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

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

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp

275

280

285

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Asp Glu
 355 360 365

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

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

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

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

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

Arg Lys Glu Leu Ser Leu Ser Pro
 450 455

<210> 210

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 210

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

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

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

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

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

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

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

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

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Asp Glu
355 360 365

Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly Phe Tyr

370

375

380

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

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

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

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

Arg Lys Glu Leu Ser Leu Ser Pro
 450 455

<210> 211

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 211

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

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

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

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

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser

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

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

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Asp Glu
355 360 365

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

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

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

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

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

Arg Lys Glu Leu Ser Leu Ser Pro
450 455

<210> 212

<211> 456
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 212

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser

165

170

175

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

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

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

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

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

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

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

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Asp Glu
 355 360 365

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

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

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

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

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

Arg Lys Glu Leu Ser Leu Ser Pro
450 455

<210> 213

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 213

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

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

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

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

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

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

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

260

265

270

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

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Asp Glu
 355 360 365

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

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

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

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

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

Arg Lys Glu Leu Ser Leu Ser Pro
 450 455

<210> 214
<211> 219
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 214

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 Gln Pro Ser Gln Glu Val Val His Met
20 25 30

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

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

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

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

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

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Arg
115 120 125

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

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

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

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

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

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

<210> 215

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 215

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 Gln Pro Ser Gln Glu Val Val His Met
20 25 30

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

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

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

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

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

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Arg
115 120 125

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

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

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

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

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

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

<210> 216
<211> 681
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 216

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
450 455 460

Cys Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe Leu Phe Pro
465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Glu
580 585 590

Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

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

625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
 645 650 655

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
 660 665 670

Thr Gln Lys Ser Leu Ser Leu Ser Pro
 675 680

<210> 217
<211> 681
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 217

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

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

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

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

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

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

Tyr Ile Tyr Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Ser Ser

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

Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val
305 310 315 320

Tyr Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro
325 330 335

Ala Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser
340 345 350

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
450 455 460

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn

500

505

510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
 515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
 530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
 545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
 565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp
 580 585 590

Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
 595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
 610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
 625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
 645 650 655

Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr
 660 665 670

Thr Arg Lys Glu Leu Ser Leu Ser Pro
 675 680

<210> 218

<211> 678

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 218

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

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

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

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

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

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

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

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

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
130 135 140

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
145 150 155 160

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

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

Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
195 200 205

Pro Lys Ser Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
210 215 220

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg Ser Leu
225 230 235 240

Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn Val Trp Phe
245 250 255

His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Gln
260 265 270

Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Gly Tyr Tyr His Pro Ser Val
275 280 285

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Ile Tyr
290 295 300

Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
305 310 315 320

His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro Ala Glu Gly
325 330 335

Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
340 345 350

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
355 360 365

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

370

375

380

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
 385 390 395 400

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 405 410 415

Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln Thr Tyr Ile
 420 425 430

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Glu Lys Val
 435 440 445

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 450 455 460

Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 465 470 475 480

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 485 490 495

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 500 505 510

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 515 520 525

Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 530 535 540

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 545 550 555 560

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 565 570 575

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr
580 585 590

Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser
595 600 605

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
610 615 620

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
625 630 635 640

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe
645 650 655

Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr Thr Arg Lys
660 665 670

Glu Leu Ser Leu Ser Pro
675

<210> 219
<211> 681
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 219

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
225 230 235 240

Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn

245

250

255

Val Trp Phe His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 260 265 270

Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Gly Tyr Tyr His
 275 280 285

Pro Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn
 290 295 300

Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val
 305 310 315 320

Tyr Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro
 325 330 335

Ala Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 340 345 350

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
 420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
450 455 460

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp
580 585 590

Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly

645

650

655

Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr
 660 665 670

Thr Arg Lys Glu Leu Ser Leu Ser Pro
 675 680

<210> 220
 <211> 676
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 220

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

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

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

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

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

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

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

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

115

120

125

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

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

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

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

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

Arg Val Glu Pro Lys Ser Cys Gly Gly Gly Gly Ser Gln Val Gln Leu
 210 215 220

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg Ser Leu Arg Leu
 225 230 235 240

Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn Val Trp Phe His Trp
 245 250 255

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Gln Ile Lys
 260 265 270

Asp Tyr Tyr Asn Ala Tyr Ala Gly Tyr Tyr His Pro Ser Val Lys Gly
 275 280 285

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Ile Tyr Leu Gln
 290 295 300

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

Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro Ala Glu Gly Val Asp
325 330 335

Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
340 345 350

Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
355 360 365

Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro
370 375 380

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
385 390 395 400

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
405 410 415

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

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Glu Lys Val Glu Pro
435 440 445

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
450 455 460

Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
465 470 475 480

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
485 490 495

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
500 505 510

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

515

520

525

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 530 535 540

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 545 550 555 560

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 565 570 575

Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr Lys Asn
 580 585 590

Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 595 600 605

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 610 615 620

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 625 630 635 640

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 645 650 655

Ser Val Leu His Glu Ala Leu His Ala His Tyr Thr Arg Lys Glu Leu
 660 665 670

Ser Leu Ser Pro
 675

<210> 221

<211> 671

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 221

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

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

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

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

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

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

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

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

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

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

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

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

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

Arg Val Glu Pro Lys Ser Cys Gln Val Gln Leu Val Glu Ser Gly Gly
210 215 220

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

Gly Phe Lys Phe Ser Asn Val Trp Phe His Trp Val Arg Gln Ala Pro
245 250 255

Gly Lys Gly Leu Glu Trp Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala
260 265 270

Tyr Ala Gly Tyr Tyr His Pro Ser Val Lys Gly Arg Phe Thr Ile Ser
275 280 285

Arg Asp Asp Ser Lys Asn Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys
290 295 300

Thr Glu Asp Thr Ala Val Tyr Tyr Cys His Tyr Val His Tyr Ala Ala
305 310 315 320

Ala Ser Gln Leu Leu Pro Ala Glu Gly Val Asp Ala Trp Gly Gln Gly
325 330 335

Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
340 345 350

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
355 360 365

Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
370 375 380

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

385		390		395		400
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser						
		405		410		415
Cys Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro						
		420		425		430
Ser Asn Thr Lys Val Asp Glu Lys Val Glu Pro Lys Ser Cys Asp Lys						
		435		440		445
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro						
		450		455		460
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser						
465		470		475		480
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp						
		485		490		495
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn						
		500		505		510
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val						
		515		520		525
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu						
		530		535		540
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys						
545		550		555		560
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr						
		565		570		575
Leu Pro Pro Cys Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp						
		580		585		590

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
595 600 605

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
610 615 620

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
625 630 635 640

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu
645 650 655

Ala Leu His Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
660 665 670

<210> 222
<211> 681
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 222

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
225 230 235 240

Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Asn
245 250 255

Val Trp Phe His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
260 265 270

Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Gly Tyr Tyr His

275

280

285

Pro Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn
 290 295 300

Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val
 305 310 315 320

Tyr Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro
 325 330 335

Ala Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 340 345 350

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
 420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 450 455 460

Cys Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe Leu Phe Pro
 465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Glu
580 585 590

Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
645 650 655

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
660 665 670

Thr Gln Lys Ser Leu Ser Leu Ser Pro

675

680

<210> 223
 <211> 681
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 223

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

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

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

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

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

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

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

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser

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

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
450 455 460

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp
580 585 590

Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
645 650 655

Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr
660 665 670

Thr Arg Lys Glu Leu Ser Leu Ser Pro
675 680

$\langle 210 \rangle$	224
$\langle 211 \rangle$	678
$\langle 212 \rangle$	PRT
$\langle 213 \rangle$	Artificial Sequence

<220>
<223> an artificially synthesized sequence

$\langle 400 \rangle$ 224

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Glu Asp Ile Tyr Asn Arg

20

25

30

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

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

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

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

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

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

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 130 135 140

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 145 150 155 160

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

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

Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
 195 200 205

Pro Lys Ser Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Val
 210 215 220

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg Ser Leu
225 230 235 240

Arg Leu Ser Cys Ala Ala Ser Gly Phe Val Phe Ser Asn Val Trp Phe
245 250 255

His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Gln
260 265 270

Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala Pro Ser Val
275 280 285

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Ile Tyr
290 295 300

Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
305 310 315 320

His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly
325 330 335

Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
340 345 350

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
355 360 365

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

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
385 390 395 400

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
405 410 415

Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln Thr Tyr Ile

420	425	430
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Glu Lys Val		
435	440	445
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala		
450	455	460
Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro		
465	470	475
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val		
485	490	495
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val		
500	505	510
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln		
515	520	525
Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln		
530	535	540
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala		
545	550	555
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro		
565	570	575
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr		
580	585	590
Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser		
595	600	605
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr		
610	615	620

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
625 630 635 640

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe
645 650 655

Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr Thr Arg Lys
660 665 670

Glu Leu Ser Leu Ser Pro
675

<210> 225

<211> 681

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 225

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
225 230 235 240

Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Val Phe Ser Asn
245 250 255

Val Trp Phe His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
260 265 270

Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala
275 280 285

Pro Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn

290

295

300

Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val
 305 310 315 320

Tyr Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro
 325 330 335

Ala Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 340 345 350

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
 420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 450 455 460

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
 465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp
580 585 590

Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
645 650 655

Asn Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ala His Tyr
660 665 670

Thr Arg Lys Glu Leu Ser Leu Ser Pro
675 680

<210> 226

<211> 676
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 226

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

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

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

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

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

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

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

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

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

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

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

165

170

175

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

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

Arg Val Glu Pro Lys Ser Cys Gly Gly Gly Gly Ser Gln Val Gln Leu
 210 215 220

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg Ser Leu Arg Leu
 225 230 235 240

Ser Cys Ala Ala Ser Gly Phe Val Phe Ser Asn Val Trp Phe His Trp
 245 250 255

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Gln Ile Lys
 260 265 270

Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala Pro Ser Val Lys Gly
 275 280 285

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser Ile Tyr Leu Gln
 290 295 300

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

Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp
 325 330 335

Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys
 340 345 350

Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
 355 360 365

Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro
370 375 380

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
385 390 395 400

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
405 410 415

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

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Glu Lys Val Glu Pro
435 440 445

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
450 455 460

Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
465 470 475 480

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
485 490 495

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
500 505 510

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Ala
515 520 525

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
530 535 540

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
545 550 555 560

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu

565

570

575

Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr Lys Asn
 580 585 590

Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 595 600 605

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 610 615 620

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 625 630 635 640

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 645 650 655

Ser Val Leu His Glu Ala Leu His Ala His Tyr Thr Arg Lys Glu Leu
 660 665 670

Ser Leu Ser Pro
 675

<210> 227
 <211> 671
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 227

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

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

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

35

40

45

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

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

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

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

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

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

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

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

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

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

Arg Val Glu Pro Lys Ser Cys Gln Val Gln Leu Val Glu Ser Gly Gly
 210 215 220

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

Gly Phe Val Phe Ser Asn Val Trp Phe His Trp Val Arg Gln Ala Pro
245 250 255

Gly Lys Gly Leu Glu Trp Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala
260 265 270

Tyr Ala Ala Tyr Tyr Ala Pro Ser Val Lys Gly Arg Phe Thr Ile Ser
275 280 285

Arg Asp Asp Ser Lys Asn Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys
290 295 300

Thr Glu Asp Thr Ala Val Tyr Tyr Cys His Tyr Val His Tyr Ala Ser
305 310 315 320

Ala Ser Thr Leu Leu Pro Ala Glu Gly Val Asp Ala Trp Gly Gln Gly
325 330 335

Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
340 345 350

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
355 360 365

Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
370 375 380

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
385 390 395 400

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
405 410 415

Cys Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
420 425 430

Ser Asn Thr Lys Val Asp Glu Lys Val Glu Pro Lys Ser Cys Asp Lys

445

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
625 630 635 640

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Leu His Glu
645 650 655

Ala Leu His Ala His Tyr Thr Arg Lys Glu Leu Ser Leu Ser Pro
660 665 670

<210> 228
<211> 681
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 228

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
225 230 235 240

Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Val Phe Ser Asn
245 250 255

Val Trp Phe His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
260 265 270

Val Ala Gln Ile Lys Asp Tyr Tyr Asn Ala Tyr Ala Ala Tyr Tyr Ala
275 280 285

Pro Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn
290 295 300

Ser Ile Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val
305 310 315 320

Tyr Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro

325

330

335

Ala Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 340 345 350

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 355 360 365

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

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 385 390 395 400

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 405 410 415

Ser Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln
 420 425 430

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 435 440 445

Glu Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 450 455 460

Cys Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe Leu Phe Pro
 465 470 475 480

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 485 490 495

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
 500 505 510

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
 515 520 525

Glu Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
530 535 540

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
545 550 555 560

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
565 570 575

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Glu
580 585 590

Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe
595 600 605

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
610 615 620

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
625 630 635 640

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly
645 650 655

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
660 665 670

Thr Gln Lys Ser Leu Ser Leu Ser Pro
675 680

<210> 229

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 229

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

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

Leu Ser Ser Val Val Thr Val Pro Ser Cys Ser Leu Gly Thr Gln Thr

195

200

205

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

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

Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe Leu Phe Pro Pro
 245 250 255

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

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

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365

Met Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly Phe Tyr
 370 375 380

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

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

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

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

Gln Lys Ser Leu Ser Leu Ser Pro
450 455

<210> 230

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 230

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ala Ala Ser Gln Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

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

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

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

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

Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe Leu Phe Pro Pro
245 250 255

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

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

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

290

295

300

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365

Met Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly Phe Tyr
 370 375 380

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

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

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

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

Gln Lys Ser Leu Ser Leu Ser Pro
 450 455

<210> 231

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 231

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

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

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

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

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

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

Tyr Cys His Tyr Val His Tyr Ala Ser Ala Ser Thr Leu Leu Pro Ala
100 105 110

Glu Gly Val Asp Ala Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr
145 150 155 160

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

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

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

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

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

Pro Ala Pro Glu Leu Arg Gly Gly Pro Lys Val Phe Leu Phe Pro Pro
245 250 255

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

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

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

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn

385 390 395 400

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

Gln Lys Ser Leu Ser Leu Ser Pro
450 455

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<220>
<223>  an artificially synthesized sequence
<400>  232
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Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Ser Ser
20 25 30

Met Gly Thr Ile Tyr Thr Gly Asp Tyr Ser Thr Asp Tyr Ala Ser Trp
50 55 60

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr

85

90

95

Cys Ala Arg His Thr Gly Tyr Gly Tyr Phe Gly Leu Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 233
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 233

Ser Ser Tyr Asp Met Gly
 1 5

<210> 234
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 234

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

Gly

<210> 235
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 235

His Thr Gly Tyr Gly Tyr Phe Gly Leu
1 5

<210> 236

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 236

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

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

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

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

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

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

Tyr Ile Tyr Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 237

<211> 13

<212> PRT

<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 237

Gln Ser Thr Glu Ser Val Tyr Gly Ser Asp Trp Leu Ser
1 5 10

<210> 238
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 238

Gln Ala Ser Asn Leu Glu Ile
1 5

<210> 239
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 239

Gln Gly Tyr Tyr Ser Gly Tyr Ile Tyr Ala
1 5 10

<210> 240
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 240

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

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

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

Gly Met Ile Asp Pro Ser Tyr Ser Glu Thr Arg Leu Asn Gln Lys Phe
50 55 60

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

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

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

Thr Val Ser Ser
115

<210> 241
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 241

Ser Tyr Trp Met His
1 5

<210> 242
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 242

Met Ile Asp Pro Ser Tyr Ser Glu Thr Arg Leu Asn Gln Lys Phe Lys
1 5 10 15

Asp

<210> 243

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 243

Tyr Gly Asn Tyr Phe Asp Tyr
1 5

<210> 244

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 244

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

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

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

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

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

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

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

<210> 245
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 245

Lys Ala Ser Glu Asp Ile Tyr Asn Arg Leu Ala
1 5 10

<210> 246
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 246

Gly Ala Thr Ser Leu Glu Thr
1 5

<210> 247
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 247

Gln Gln Tyr Trp Ser Thr Pro Tyr Thr
1 5

<210> 248
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 248

Val Glu Pro Lys Ser Cys Gly Gly Gly Gly Ser
1 5 10

<210> 249
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 249

Val Glu Pro Lys Ser Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 250
<211> 984
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 250

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

Gly Tyr Val Tyr 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 Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

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

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
115 120 125

Gly Gly Gly Gly Ser Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu
130 135 140

Ser Leu Ser Pro Gly Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln
145 150 155 160

Arg Val Asn Asn Asn Tyr Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln
165 170 175

Ala Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile
180 185 190

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
195 200 205

Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
210 215 220

Tyr Asp Arg Ser Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile

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

Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro
435 440 445

Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu
450 455 460

Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu Trp
465 470 475 480

Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
485 490 495

Gly Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
500 505 510

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
515 520 525

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
530 535 540

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
545 550 555 560

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr
565 570 575

Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp
580 585 590

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
595 600 605

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
610 615 620

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

625		630		635		640									
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp
				645					650					655	
Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys
			660					665					670		
Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser
		675					680					685			
Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser
	690					695					700				
Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser
705					710					715					720
Leu	Ser	Leu	Ser	Pro	Gly	Lys	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly
				725					730					735	
Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser
			740					745					750		
Gly	Gly	Gly	Gly	Ser	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala
		755					760					765			
Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro
	770					775					780				
Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val
785					790					795					800
Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val
				805					810					815	
Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Cys	Glu	Glu	Gln
			820					825					830		

Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln
835 840 845

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
850 855 860

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
865 870 875 880

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
885 890 895

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
900 905 910

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
915 920 925

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
930 935 940

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
945 950 955 960

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
965 970 975

Ser Leu Ser Leu Ser Pro Gly Lys
980

<210> 251

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 251

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

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

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

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

Tyr Cys Arg Tyr Val His Tyr Ala Ala Gly Tyr Gly Val Asp Ile Trp
100 105 110

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

<210> 252
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 252

Asn Ala Trp Met His
1 5

<210> 253
<211> 19
<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 253

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

Val Lys Gly

<210> 254

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 254

Val His Tyr Ala Ala Gly Tyr Gly Val Asp Ile
1 5 10

<210> 255

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 255

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 Pro Leu Val His Ser
20 25 30

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

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

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

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

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

<210> 256
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 256

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

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

<220>
<223> an artificially synthesized sequence

<400> 257

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 258
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 258

Gly Gln Gly Thr Gln Val Pro Tyr Thr
1 5

<210> 259
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 259

Val Glu Pro Lys Ser Cys
1 5

<210> 260
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 260

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

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

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

Ile Ile Ser Asn Ser Gly Ser Gly Phe Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Val Lys Ile

65		70		75		80									
Ser	Ser	Pro	Thr	Thr	Glu	Asp	Thr	Ala	Thr	Tyr	Phe	Cys	Ala	Arg	Val
				85					90					95	
Phe	Asp	Ala	Asp	Ser	Ser	Gly	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	Pro	Trp
			100					105					110		
Gly	Pro	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser						
		115					120								
<210> 261															
<211> 111															
<212> PRT															
<213> Artificial Sequence															
<220>															
<223> an artificially synthesized sequence															
<400> 261															
Asp	Val	Val	Met	Thr	Gln	Thr	Pro	Ser	Ser	Val	Ser	Glu	Pro	Val	Gly
1				5					10					15	
Gly	Thr	Val	Thr	Ile	Lys	Cys	Gln	Ala	Ser	Glu	Asp	Ile	Glu	Ser	Tyr
			20					25					30		
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Pro	Pro	Lys	Leu	Leu	Ile
		35					40					45			
Tyr	Ala	Ala	Ser	Thr	Leu	Ala	Ser	Gly	Val	Ser	Ser	Arg	Phe	Arg	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Glu	Tyr	Thr	Leu	Thr	Ile	Ser	Asp	Leu	Glu	Cys
65					70					75				80	
Ala	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Ser	Thr	Tyr	Tyr	Asp	Ser	Ser
				85					90					95	
Gly	Val	Asp	Trp	Ala	Phe	Gly	Gly	Gly	Thr	Glu	Val	Val	Val	Lys	

100

105

110

<210> 262
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 262

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

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

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

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

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

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Met Ile
 85 90 95

Gly Ser Glu Tyr Ala Ser Ser Ser Glu Tyr Tyr Asp Ala Phe Asp Pro
 100 105 110

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

<210> 263
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 263

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

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

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

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

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

Asp Asp Ala Ala Ile Tyr Tyr Cys Gln Ser Ala Tyr Tyr Thr Thr Ser
85 90 95

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

<210> 264

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 264

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

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

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

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

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

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

Val Arg Val Ala Leu Val Val Ala Gly Val Ala Tyr Tyr Gly Met Asp
100 105 110

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

<210> 265
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 265

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

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

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

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

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

Cys Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Tyr Ser Ser
85 90 95

Gly Ser Ser Tyr Gly Ala Phe Ala Phe Gly Gly Gly Thr Glu Val Val
100 105 110

Val Lys

<210> 266
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 266

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

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

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

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

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

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

Ser Trp Asp Gly Phe Asn Ile Trp Gly Pro Gly Thr Leu Val Thr Val
100 105 110

Ser Ser

<210> 267
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 267

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

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

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

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

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

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

Val Gly Trp Phe Asn Asp Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 268
<211> 128
<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 268

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

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

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

Ala Cys Ile Tyr Asn Asp Asp Gly Ser Ala Tyr Ser Ala Ser Trp Ala
50 55 60

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

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

Arg Ser Pro Tyr Tyr Thr Tyr Gly Gly Ala Pro Ser Ala Tyr Ala Ser
100 105 110

Gly Tyr Phe Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 269

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 269

Ala Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val

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

Lys

<210> 270
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 270

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

35

40

45

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

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

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

Cys Val Arg Cys Asp Ala Ala Gly Ser Gly Ala Phe Asn Leu Trp Gly
 100 105 110

Pro Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 271

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 271

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

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

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Cys

65		70		75		80									
Asp	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Gly	Ser	Gly	Tyr	Met	Asp
				85					90					95	

Val	Asp	Asn	Val	Phe	Gly	Gly	Gly	Thr	Glu	Val	Val	Val	Lys
			100					105					110

<210> 272
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 272

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

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

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

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

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

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

Cys	Ala	Arg	Asp	Val	Tyr	Ile	Asp	Ser	Thr	Ile	Phe	Asn	Phe	Asn	Leu
			100					105					110		

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser

115

120

<210> 273
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 273

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

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

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

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

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

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

Gly Trp Tyr Ser Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
 100 105 110

<210> 274
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 274

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

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

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

Ile Ala Cys Ile Tyr Thr Gly Asp Gly Ser Thr Asp Tyr Ala Ser Trp
50 55 60

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 275
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 275

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

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

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

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

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

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

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

<210> 276
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 276

Asn Tyr Gly Val Ser
1 5

<210> 277
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 277

Tyr Ile Asp Pro Ala Phe Gly Arg Thr Tyr Tyr Ala Ser Trp Val Asn
1 5 10 15

Gly

<210> 278
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 278

Val	Ala	Leu	Val	Val	Ala	Gly	Val	Ala	Tyr	Tyr	Gly	Met	Asp	Val
1				5					10					15

<210> 279
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 279

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

<210> 280
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 280

Arg	Thr	Ser	Thr	Leu	Ala	Ser
1				5		

<210> 281
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 281

Gln	Ser	Tyr	Tyr	Tyr	Ser	Ser	Gly	Ser	Ser	Tyr	Gly	Ala	Phe	Ala
1				5					10					15

<210> 282
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 282

Ser	Ser	Tyr	Asp	Met	Cys
1				5	

<210> 283
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 283

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

Gly

<210> 284
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 284

Asn Ser Gly Tyr Gly Tyr Phe Gly Leu
1 5

<210> 285
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 285

Ser Asn Ala Met Cys
1 5

<210> 286
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 286

Cys Ile Tyr Asn Asp Asp Gly Ser Ala Tyr Ser Ala Ser Trp Ala Lys
1 5 10 15

Gly

<210> 287
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 287

Ser Pro Tyr Tyr Thr Tyr Gly Gly Ala Pro Ser Ala Tyr Ala Ser Gly
1 5 10 15

Tyr Phe Asn Leu
20

<210> 288
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 288

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

<210> 289
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 289

Asp Ala Ser Val Leu Thr Ser
1 5

<210> 290
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 290

Gln Ser Asp Tyr Tyr Ser Thr Gly Gly Ser Tyr Gly Phe Ala
1 5 10

<210> 291
<211> 6
<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 291

Ser Ser Gly Tyr Met Cys
1 5

<210> 292

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 292

Cys Ile Ser Gly Gly Ser Ser Gly Asp Thr Asp Tyr Ala Asn Trp Ala
1 5 10 15

Lys Gly

<210> 293

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 293

Asp Val Tyr Ile Asp Ser Thr Ile Phe Asn Phe Asn Leu
1 5 10

<210> 294

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 294

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

<210> 295

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 295

Ala Ala Ser Ser Leu Ala Ser
1 5

<210> 296

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 296

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

<210> 297

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 297

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Ser Ser

30

Met Gly Thr Ile Tyr Thr Gly Asp Tyr Ser Thr Asp Tyr Ala Ser Trp

50

55

60

Ala Lys Gly 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 His Thr Gly Tyr Gly Tyr Phe Gly Leu Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 299

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 299

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

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

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

Met Gly Thr Ile Tyr Thr Gly Asp Tyr Ser Thr Asp Tyr Ala Ser Trp
 50 55 60

Ala Lys Gly 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 His Thr Gly Tyr Gly Tyr Phe Gly Leu Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 300

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 300

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Ser Ser
 20 25 30

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

Met Gly Thr Ile Tyr Thr Gly Asp Tyr Ser Thr Asp Tyr Ala Ser Trp
 50 55 60

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

Thr Leu Val Thr Val Ser Ser

115

<210> 301
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 301

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Ser Ser
20 25 30

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

Met Gly Thr Ile Tyr Thr Gly Asp Tyr Ser Thr Asp Tyr Ala Ser Trp
50 55 60

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

Thr Leu Val Thr Val Ser Ser
115

<210> 302
<211> 110
<212> PRT
<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 302

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

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

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

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

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

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

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

<210> 303

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 303

Asn Thr Gly Tyr Gly Tyr Phe Gly Leu
1 5

<210> 304

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 304

Gln Gly Tyr Tyr Ser Gly Tyr Ser Tyr Ala
1 5 10

<210> 305

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 305

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

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

Leu Ile Glu Trp Ile Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Val Met Asn Pro Gly Ser Gly Gly Thr His Tyr Ser Glu Lys Phe
50 55 60

Arg Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ile Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Arg Ser Asp Tyr Asp Tyr Val Thr Tyr Ala Met Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Ser Val Thr Val Ser Ser

115

120

<210> 306
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 306

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Met Ser Cys Arg Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
 20 25 30

Tyr Met Lys Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
 35 40 45

Gly Asp Ile Asn Pro Asn Asn Gly Asp Thr Phe Tyr Asn Gln Lys Phe
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ile Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Asn Ser Leu Thr Ser Asp Asp Ser Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Gly Asn Tyr Ala Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Leu Thr Val Ser Ser
 115

<210> 307
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 307

Gln Val Gln Leu Gln Gln Ser Gly Gly Asp Leu Met Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ala Gly Tyr Thr Phe Ser Asn Tyr
20 25 30

Tyr Ile Glu Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
35 40 45

Gly Glu Ile Leu Pro Gly Ser Gly Ser Thr Thr Tyr Asn Glu Lys Phe
50 55 60

Lys Gly Lys Ala Ser Phe Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Trp Gly Ala Arg Glu Pro Gly Phe Pro Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ala
115

<210> 308

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 308

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Ser Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Asp Tyr
20 25 30

Tyr Met Asn Trp Val Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu
35 40 45

Ala Leu Ile Arg Asn Lys Ala Asn Gly Tyr Thr Thr Glu Tyr Asn Ala
50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Gln Asn Ile
65 70 75 80

Leu Tyr Leu Gln Met Asn Ala Leu Arg Ala Glu Asp Ser Ala Thr Tyr
85 90 95

Tyr Cys Ala Arg Asp Ser Asp Gly Tyr Tyr Glu Tyr Tyr Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 309

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 309

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 Asn Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Leu Gly Leu Glu Trp Met
35 40 45

Gly Ile Ile Asn Pro Ser Asp Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Asn Thr Val Tyr
65 70 75 80

Met Asp Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asn Ser Ala Phe Tyr Ser Tyr Tyr Asp Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 310

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 310

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 Asp Ser Ile Ser Ser Tyr
20 25 30

Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr 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 Ser Gln Phe Ser Leu
65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Ser Ile Ala Val Arg Gly Phe Phe Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 311

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 311

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 Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Val Tyr 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 Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Ser Ile Ala Val Thr Gly Phe Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 312
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 312

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 Ala Ser Ile Ser Ser Phe
20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr 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 Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Ile Ala Val Ala Gly Phe Phe Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 313
<211> 107
<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 313

Asp Ile Lys Met Thr Gln Ser Pro Ser Ser Met Tyr Ala Ser Leu Gly
1 5 10 15

Glu Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Ile Asn Ser Tyr
20 25 30

Leu Ile Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Thr Leu Ile
35 40 45

Tyr Arg Thr Asn Arg Leu Val Asp Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Gln Asp Tyr Ser Leu Thr Ile Ser Ser Leu Glu Tyr
65 70 75 80

Gly Asp Met Gly Ile Tyr Tyr Cys Leu Gln Tyr Asp Glu Phe Pro Phe
85 90 95

Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 314

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 314

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Lys Ser Val Ser Thr Ser

20

25

30

Gly Tyr Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
 35 40 45

Lys Leu Leu Ile Phe Leu Ala Ser Asn Leu Glu Ser Gly Val Pro Ala
 50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
 65 70 75 80

Pro Val Glu Glu Glu Asp Ala Ala Thr Tyr Tyr Cys Gln His Ser Arg
 85 90 95

His Leu Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

<210> 315

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 315

Asp Ile Val Met Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly
 1 5 10 15

Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Gly Thr Asn
 20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser

65		70		75		80									
Glu	Asp	Leu	Ala	Glu	Tyr	Phe	Cys	Gln	Gln	Tyr	Asn	Asn	Tyr	Pro	Leu
				85					90					95	

Thr	Phe	Gly	Ala	Gly	Thr	Lys	Leu	Glu	Leu	Lys
			100					105		

<210> 316
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> an artificially synthesized sequence

<400> 316

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Leu	Gly
1				5					10					15	

Glu	Arg	Val	Ser	Leu	Thr	Cys	Arg	Ala	Ser	Gln	Glu	Ile	Ser	Asp	Tyr
			20					25						30	

Leu	Ser	Trp	Leu	Gln	Gln	Lys	Pro	Asp	Gly	Thr	Ile	Lys	Arg	Leu	Ile
		35					40					45			

Phe	Ala	Ala	Ser	Thr	Leu	Asp	Ser	Gly	Val	Pro	Lys	Arg	Phe	Ser	Gly
	50					55					60				

Ser	Arg	Ser	Gly	Ser	Asp	Phe	Ser	Leu	Ser	Ile	Ser	Ser	Leu	Glu	Ser
65					70					75				80	

Glu	Asp	Phe	Ala	Asp	Tyr	Tyr	Cys	Leu	Gln	Tyr	Ala	Ser	Tyr	Pro	Tyr
				85					90					95	

Thr	Phe	Gly	Ser	Gly	Thr	Lys	Leu	Glu	Ile	Lys
			100					105		

<210> 317

<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 317

Asp Val Val Met Thr Gln Thr 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 Arg
20 25 30

Asp Gly Asn Thr Tyr Leu Ser Trp Phe Gln Gln Arg Pro Gly Gln Ser
35 40 45

Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Trp Gln Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Gly Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gly
85 90 95

Thr His Trp Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 318
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 318

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 Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Thr 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 Thr Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 319

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> an artificially synthesized sequence

<400> 319

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 Arg Val Asn Asn Asn
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Arg 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 Val Tyr Tyr Cys Gln Gln Tyr Asp Arg Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 320
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> an artificially synthesized sequence

<400> 320

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 Asn Lys Asn
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys 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 Val Tyr Tyr Cys Gln Gln Tyr Asp Arg Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105