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<151> 2017-12-22

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Asp Ile Gly Ser Gly
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His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
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Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Lys Tyr Gly Leu Ala

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

Tyr Tyr Cys Lys Ala Val Phe Met Pro Gln His Trp His Pro Ala Ala

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

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

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

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

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

Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

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

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

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

Tyr Tyr Cys Arg Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Arg Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

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

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Phe Ser Gly Ser Gly Ser Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Ser Thr Ser Trp Tyr Gln Gln Lys Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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Ala Ser Val Asn Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp
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20 25 30

Ser Thr Ser Trp Tyr Gln Gln Lys Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Phe Ser Gly Ser Gly Ser Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
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His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
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Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser
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Pro Gly Val Gln Pro Ala Pro Gly Gly Gly Gly Ser
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Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
100 105

<210> 66
<211> 103
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 66

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

Gly Thr Lys Val Glu Ile Lys
100

<210> 67
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 67

Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu Phe Glu
1 5 10 15

Gln Lys Leu Ile Ser Glu Glu Asp Leu
20 25

<210> 68

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 68

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 69

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 69

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
1 5 10 15

Gln Lys Leu Ile Ser Glu Glu Asp Leu
20 25

<210> 70

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 70

Gln Ala Cys Lys Ala His His His His His His Gly Ala Glu Phe Glu

1 5 10 15

Gln Lys Leu Ile Ser Glu Glu Asp Leu
20 25

<210> 71
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 71

Ala Ala Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
1 5 10 15

Leu Ile Ser Glu Glu Asp Leu
20

<210> 72
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 72

Ala Cys Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
1 5 10 15

Leu Ile Ser Glu Glu Asp Leu
20

<210> 73
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 73

Gln Ala Ser Gly Ala His His His His His His

1 5 10

<210> 74
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 74

Gln Ala Cys Gly Ala His His His His His His
1 5 10

<210> 75
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 75

Gln Ala Cys Lys Ala His His His His His His
1 5 10

<210> 76
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 76

Ala Ala Ala His His His His His His
1 5

<210> 77
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 77

Ala Cys Ala His His His His His His
1 5

<210> 78
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 78

Gln Ala Ser Gly Ala
1 5

<210> 79
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 79

Gln Ala Cys Gly Ala
1 5

<210> 80
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 80

Gln Ala Cys Lys Ala
1 5

<210> 81
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 81

Ala Cys Ala
1

<210> 82

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 82

Ser Ala Pro Ser Ala
1 5

<210> 83

<211> 361

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 83

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro
115 120 125

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

Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu
145 150 155 160

Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln
165 170 175

Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr
180 185 190

Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr
195 200 205

Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly
210 215 220

Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
225 230 235 240

Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro
245 250 255

Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg
260 265 270

Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly
275 280 285

Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly
290 295 300

Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu

305		310		315		320
Thr	Ile	Ser	Ser	Met	Glu	Ala
				325		
					Ala	Ala
					330	
					Thr	Tyr
						Tyr
						Cys
						335
Gln	Trp	Ser	Ser	Asn	Pro	Leu
						Thr
						340
						Phe
						345
						Gly
						Ala
						Gly
						Thr
						Lys
						350
						Leu
						Glu
Leu	Lys	Ser	His	His	His	His
						355
						His
						360
						His
						His
<210>	84					
<211>	371					
<212>	PRT					
<213>	Artificial Sequence					
<220>						
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<400>	84					
Ala	Ser	Val	Asn	Gln	Thr	Pro
1				5		
						Arg
						Thr
						10
						Ala
						Thr
						Lys
						Glu
						Thr
						15
						Gly
						Glu
Ser	Leu	Thr	Ile	Asn	Cys	Val
						Val
						20
						Thr
						25
						Gly
						Ala
						Asn
						Tyr
						30
						Gly
						Leu
						Ala
Ala	Thr	Tyr	Trp	Tyr	Arg	Lys
						Asn
						35
						Pro
						Gly
						40
						Ser
						Ser
						45
						Asn
						Gln
						Glu
						Arg
Ile	Ser	Ile	Ser	Gly	Arg	Tyr
						Val
						50
						Glu
						Ser
						Val
						60
						Asn
						Lys
						Arg
						Thr
						Met
Ser	Phe	Ser	Leu	Arg	Ile	Lys
						Asp
						70
						Leu
						Thr
						75
						Val
						Ala
						Asp
						80
						Ser
						Ala
						Thr
Tyr	Tyr	Cys	Lys	Ala	Tyr	Pro
						Trp
						85
						Gly
						Ala
						90
						Gly
						Ala
						Pro
						Trp
						95
						Leu
						Val
Gln	Trp	Tyr	Asp	Gly	Ala	Gly
						Thr
						100
						Val
						105
						Leu
						Thr
						Val
						Asn
						Gly
						110
						Gly
						Gly
						Gly
Gly	Ser	Gly	Gly	Gly	Gly	Ser
						Gly
						Gly
						Gly
						Ser
						Asp
						Ile
						Lys
						Leu

115

120

125

Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met
 130 135 140

Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp
 145 150 155 160

Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn
 165 170 175

Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala
 180 185 190

Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser
 195 200 205

Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr
 210 215 220

Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr
 225 230 235 240

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
 245 250 255

Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser
 260 265 270

Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser
 275 280 285

Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp
 290 295 300

Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser
 305 310 315 320

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
 325 330 335

Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro
340 345 350

Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His
355 360 365

His His His
370

<210> 85
<211> 359
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 85

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
115 120 125

Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr
130 135 140

Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
145 150 155 160

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe
165 170 175

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

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
195 200 205

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
210 215 220

Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
225 230 235 240

Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile
245 250 255

Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser
260 265 270

Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser
275 280 285

Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro
290 295 300

Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile
305 310 315 320

Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp
325 330 335

Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys

340

345

350

Ser His His His His His His
355

<210> 86

<211> 369

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 86

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

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

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

Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys

145		150		155		160
Gln Arg Pro Gly	Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser					
	165		170			175
Arg Gly Tyr Thr	Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu					
	180		185			190
Thr Thr Asp Lys	Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu					
	195		200			205
Thr Ser Glu Asp	Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp					
	210		215			220
His Tyr Cys Leu	Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser					
	225		230			235
Ser Gly Gly Gly	Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser					
	245		250			255
Asp Ile Gln Leu	Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly					
	260		265			270
Glu Lys Val Thr	Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met					
	275		280			285
Asn Trp Tyr Gln	Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr					
	290		295			300
Asp Thr Ser Lys	Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser					
	305		310			315
Gly Ser Gly Thr	Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu					
	325		330			335
Asp Ala Ala Thr	Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr					
	340		345			350
Phe Gly Ala Gly	Thr Lys Leu Glu Leu Lys Ser His His His His His					
	355		360			365

His

<210> 87
<211> 491
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 87

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly
225 230 235 240

Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala
245 250 255

Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr
260 265 270

Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly
275 280 285

Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr
290 295 300

Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser
305 310 315 320

Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala
325 330 335

Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr
340 345 350

Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser
355 360 365

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln

370

375

380

Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr
 385 390 395 400

Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys
 405 410 415

Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala
 420 425 430

Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr
 435 440 445

Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr
 450 455 460

Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys
 465 470 475 480

Leu Glu Leu Lys Ser His His His His His His
 485 490

<210> 88

<211> 501

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 88

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

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

50

55

60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
 130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
 145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
 165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
 180 185 190

Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
 210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly
 225 230 235 240

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile
 245 250 255

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

Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met
275 280 285

His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr
290 295 300

Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp
305 310 315 320

Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln
325 330 335

Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg
340 345 350

Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr
355 360 365

Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
370 375 380

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

Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser
405 410 415

Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys
420 425 430

Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg
435 440 445

Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser
450 455 460

Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser
465 470 475 480

Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His

485

490

495

His His His His His
500

<210> 89

<211> 480

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 89

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr
130 135 140

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

145		150		155		160									
Gly	Ser	Ser	Asn	Gln	Glu	Arg	Ile	Ser	Ile	Ser	Gly	Arg	Tyr	Val	Glu
			165					170						175	
Ser	Val	Asn	Lys	Arg	Thr	Met	Ser	Phe	Ser	Leu	Arg	Ile	Lys	Asp	Leu
		180						185					190		
Thr	Val	Ala	Asp	Ser	Ala	Thr	Tyr	Tyr	Cys	Lys	Ala	Tyr	Pro	Trp	Gly
		195					200					205			
Ala	Gly	Ala	Pro	Trp	Leu	Val	Gln	Trp	Tyr	Asp	Gly	Ala	Gly	Thr	Val
	210					215					220				
Leu	Thr	Val	Asn	Gly	Gly	Gly	Gly	Ser	Asp	Ile	Lys	Leu	Gln	Gln	Ser
225				230						235					240
Gly	Ala	Glu	Leu	Ala	Arg	Pro	Gly	Ala	Ser	Val	Lys	Met	Ser	Cys	Lys
			245						250					255	
Thr	Ser	Gly	Tyr	Thr	Phe	Thr	Arg	Tyr	Thr	Met	His	Trp	Val	Lys	Gln
		260						265					270		
Arg	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile	Gly	Tyr	Ile	Asn	Pro	Ser	Arg
		275					280					285			
Gly	Tyr	Thr	Asn	Tyr	Asn	Gln	Lys	Phe	Lys	Asp	Lys	Ala	Thr	Leu	Thr
	290					295					300				
Thr	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr	Met	Gln	Leu	Ser	Ser	Leu	Thr
305					310					315					320
Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Tyr	Tyr	Asp	Asp	His
				325					330					335	
Tyr	Cys	Leu	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Leu	Thr	Val	Ser	Ser
			340					345					350		
Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Asp
	355						360				365				

Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu
370 375 380

Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn
385 390 395 400

Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp
405 410 415

Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly
420 425 430

Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp
435 440 445

Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe
450 455 460

Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His His His His
465 470 475 480

<210> 90
<211> 490
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 90

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr
130 135 140

Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly
195 200 205

Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val
210 215 220

Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
225 230 235 240

Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg
245 250 255

Pro Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe
260 265 270

Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu

275

280

285

Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn
 290 295 300

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser
 305 310 315 320

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
 325 330 335

Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp
 340 345 350

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
 355 360 365

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser
 370 375 380

Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
 385 390 395 400

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser
 405 410 415

Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
 420 425 430

Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser
 435 440 445

Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
 450 455 460

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
 465 470 475 480

Glu Leu Lys Ser His His His His His His
 485 490

<210> 91
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 91

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

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

Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met
245 250 255

Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp
260 265 270

Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn
275 280 285

Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala
290 295 300

Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser
305 310 315 320

Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr
325 330 335

Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr
340 345 350

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
355 360 365

Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser
370 375 380

Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser

385 390 395 400
 Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp
 405 410 415
 Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser
 420 425 430
 Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
 435 440 445
 Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro
 450 455 460
 Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His
 465 470 475 480
 His His His

 <210> 92
 <211> 493
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 92
 Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 1 5 10 15
 Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
 20 25 30
 Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45
 Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60
 Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr

65

70

75

80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly
225 230 235 240

Ser Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu
245 250 255

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

Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly
275 280 285

Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr
290 295 300

Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys
305 310 315 320

Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp
325 330 335

Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu
340 345 350

Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly
355 360 365

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu
370 375 380

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

Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln
405 410 415

Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys
420 425 430

Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr
435 440 445

Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr
450 455 460

Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly
465 470 475 480

Thr Lys Leu Glu Leu Lys Ser His His His His His His
485 490

<211> 496
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 93

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn

180

185

190

Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
 210 215 220

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
 225 230 235 240

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

Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys
 260 265 270

Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln
 275 280 285

Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg
 290 295 300

Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr
 305 310 315 320

Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr
 325 330 335

Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His
 340 345 350

Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
 355 360 365

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
 370 375 380

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

Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn
405 410 415

Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp
420 425 430

Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly
435 440 445

Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp
450 455 460

Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe
465 470 475 480

Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His His His His
485 490 495

<210> 94
<211> 506
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 94

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
210 215 220

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
225 230 235 240

Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
245 250 255

Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg
260 265 270

Pro Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe
275 280 285

Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu

290

295

300

Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn
 305 310 315 320

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser
 325 330 335

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
 340 345 350

Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp
 355 360 365

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
 370 375 380

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser
 385 390 395 400

Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
 405 410 415

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser
 420 425 430

Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
 435 440 445

Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser
 450 455 460

Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
 465 470 475 480

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
 485 490 495

Glu Leu Lys Ser His His His His His His
 500 505

<210> 95
<211> 233
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 95

Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro
1 5 10 15

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

Ile Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val
35 40 45

Val Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe
50 55 60

Val Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu
65 70 75 80

Asp Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His
85 90 95

Gln Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys
100 105 110

Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser
115 120 125

Val Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met
130 135 140

Thr Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro
145 150 155 160

Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn
165 170 175

Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met
180 185 190

Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser
195 200 205

Tyr Ser Cys Ser Val Val His Glu Gly Leu His Asn His His Thr Thr
210 215 220

Lys Ser Phe Ser Arg Thr Pro Gly Lys
225 230

<210> 96
<211> 232
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 96

Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

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

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

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

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
65 70 75 80

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
85 90 95

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
100 105 110

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

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
130 135 140

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
145 150 155 160

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
165 170 175

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

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
195 200 205

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
210 215 220

Ser Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 97
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 97

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
1 5 10 15

Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly
20 25

<210> 98
<211> 446
<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 98

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp

405

410

415

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

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

<210> 99
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 99

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

Glu Pro Ala Ser Ile Ser Cys Arg Ala Ser Lys Ser Ile Ser Lys Tyr
 20 25 30

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

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

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

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

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

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

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

130

135

140

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

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

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

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

Phe Asn Arg Gly Glu Cys
 210

<210> 100
 <211> 241
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 100

Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
 1 5 10 15

Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr
 20 25 30

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

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

Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser 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 Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
 100 105 110

Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile
 130 135 140

Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser
 145 150 155 160

Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser
 165 170 175

Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro
 180 185 190

Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile
 195 200 205

Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp
 210 215 220

Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 225 230 235 240

Ser

<210> 101

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 101

Met Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu

1	5	10	15
Gly Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Arg Asn	20	25	30
Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu	35	40	45
Ile Tyr Tyr Thr Ser Arg Leu His Ser Gly Val Pro Ser Lys Phe Ser	50	55	60
Gly Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu	65	70	75
Gln Glu Asp Ile Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro	85	90	95
Trp Thr Phe Ala Gly Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly	100	105	110
Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Gln	115	120	125
Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala Ser Met Lys Ile Ser	130	135	140
Cys Lys Ala Ser Gly Tyr Ser Phe Thr Gly Tyr Thr Met Asn Trp Val	145	150	155
Lys Gln Ser His Gly Lys Asn Leu Glu Trp Met Gly Leu Ile Asn Pro	165	170	175
Tyr Lys Gly Val Ser Thr Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr	180	185	190
Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr Met Glu Leu Leu Ser	195	200	205
Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Ser Gly Tyr	210	215	220

Tyr Gly Asp Ser Asp Trp Tyr Phe Asp Val Trp Gly Gln Gly Thr Thr
225 230 235 240

Leu Thr Val Phe Ser
245

<210> 102
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 102

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Ala Met Trp Gly Gln Trp Tyr Asp
85 90 95

Gly Ala Gly Thr Val Leu Thr Val Asn
100 105

<210> 103
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 103

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Val Phe Met Pro Gln His Trp His Pro Ala Ala
85 90 95

His Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
100 105

<210> 104

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 104

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met

50

55

60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Ala Met Trp Gly Gln Trp Tyr Asp
85 90 95

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

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
115 120 125

Asp Leu
130

<210> 105
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 105

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Val Phe Met Pro Gln His Trp His Pro Ala Ala

85

90

95

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

Gly Ala His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
 115 120 125

Ile Ser Glu Glu Asp Leu
 130

<210> 106

<211> 132

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 106

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser

115

120

125

Glu Glu Asp Leu
130

<210> 107

<211> 134

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 107

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 108

<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 108

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gln Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu
115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
130 135

<210> 109
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 109

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Asp Ile Gly Ser Gly
85 90 95

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

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
130 135

<210> 110
<211> 248
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu
1 5 10 15

Pro Arg Gly Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro Ala
20 25 30

Pro Asn Leu Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Ile
35 40 45

Lys Asp Val Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val Val
50 55 60

Val Asp Val Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val
65 70 75 80

Asn Asn Val Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp
85 90 95

Tyr Asn Ser Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His Gln
100 105 110

Asp Trp Met Ser Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp
115 120 125

Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val
130 135 140

Arg Ala Pro Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr
145 150 155 160

Lys Lys Gln Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu
165 170 175

Asp Ile Tyr Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr
180 185 190

Lys Asn Thr Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr
195 200 205

Ser Lys Leu Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr
210 215 220

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

Ser Phe Ser Arg Thr Pro Gly Lys

<210> 111
 <211> 247
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 111

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu
 1 5 10 15

Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 20 25 30

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 35 40 45

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 50 55 60

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 65 70 75 80

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

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 100 105 110

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 115 120 125

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 130 135 140

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
 145 150 155 160

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

165

170

175

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 180 185 190

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 195 200 205

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 210 215 220

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 225 230 235 240

Leu Ser Leu Ser Pro Gly Lys
 245

<210> 112
 <211> 247
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 112

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu
 1 5 10 15

Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 20 25 30

Glu Leu Leu Gly Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys
 35 40 45

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 50 55 60

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 65 70 75 80

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

85

90

95

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 100 105 110

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 115 120 125

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 130 135 140

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
 145 150 155 160

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
 165 170 175

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 180 185 190

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 195 200 205

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 210 215 220

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 225 230 235 240

Leu Ser Leu Ser Pro Gly Lys
 245

<210> 113
 <211> 247
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 113

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu

1					5					10					15	
Pro	Lys	Ser	Ser	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	
			20				25						30			
Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	
		35					40					45				
Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	
		50					55					60				
Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	
		65			70					75					80	
Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	
				85					90					95		
Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	
				100					105					110		
Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	
		115					120					125				
Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	
		130					135					140				
Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	
		145					150			155						
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	
				165					170					175		
Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	
				180					185					190		
Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	
				195					200					205		
Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	
		210					215					220				

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
225 230 235 240

Leu Cys Leu Ser Pro Gly Lys
245

<210> 114
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 114

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1 5 10 15

Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

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

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

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

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

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

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

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
130 135 140

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

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
165 170 175

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

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
195 200 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
210 215 220

Pro Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
225 230 235 240

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
245 250

<210> 115
<211> 253
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 115

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro
115 120 125

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
145 150 155 160

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
165 170 175

Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys
180 185 190

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

Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val
210 215 220

Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His His Gly
225 230 235 240

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 116
<211> 253
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 116

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr
130 135 140

Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly

195

200

205

Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val
 210 215 220

Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His His Gly
 225 230 235 240

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 245 250

<210> 117
 <211> 256
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 117

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp

115

120

125

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
 130 135 140

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
 145 150 155 160

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
 165 170 175

Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu
 180 185 190

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
 195 200 205

Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala
 210 215 220

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His
 225 230 235 240

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 245 250 255

<210> 118
 <211> 256
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 118

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg

35

40

45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
 115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
 130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
 145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
 165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
 180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
 195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
 210 215 220

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His
 225 230 235 240

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 245 250 255

<210> 119
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 119

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

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

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
145 150 155 160

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
165 170 175

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
180 185 190

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
195 200 205

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
210 215 220

Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His
225 230 235 240

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
245 250 255

Asp Leu

<210> 120
<211> 368
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 120

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro
115 120 125

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

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
145 150 155 160

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
165 170 175

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

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
195 200 205

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
210 215 220

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
225 230 235 240

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
245 250 255

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
260 265 270

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
275 280 285

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

290

295

300

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
 305 310 315 320

Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala
 325 330 335

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His
 340 345 350

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 355 360 365

<210> 121

<211> 368

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 121

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
 85 90 95

Gly Thr Lys Val Glu Ile Lys Pro Gly Val Gln Pro Ser Pro Gly Gly

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

Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala
325 330 335

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His
340 345 350

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
355 360 365

<210> 122
<211> 368
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 122

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser
115 120 125

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

Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu
165 170 175

Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu
180 185 190

Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn
195 200 205

Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Pro Gly
210 215 220

Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr
225 230 235 240

Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys
245 250 255

Val Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg
260 265 270

Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg
275 280 285

Tyr Val Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile
290 295 300

Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr
305 310 315 320

Pro Trp Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala
325 330 335

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His

340

345

350

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 355 360 365

<210> 123

<211> 371

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 123

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
 115 120 125

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
 130 135 140

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp

145		150		155		160									
Phe	Arg	Lys	Asn	Pro	Gly	Thr	Thr	Asp	Trp	Glu	Arg	Met	Ser	Ile	Gly
			165					170						175	
Gly	Arg	Tyr	Val	Glu	Ser	Val	Asn	Lys	Gly	Ala	Lys	Ser	Phe	Ser	Leu
			180					185					190		
Arg	Ile	Lys	Asp	Leu	Thr	Val	Ala	Asp	Ser	Ala	Thr	Tyr	Tyr	Cys	Lys
		195					200					205			
Ala	Arg	Glu	Ala	Arg	His	Pro	Trp	Leu	Arg	Gln	Trp	Tyr	Asp	Gly	Ala
	210					215					220				
Gly	Thr	Val	Leu	Thr	Val	Asn	Pro	Gly	Val	Gln	Pro	Ser	Pro	Gly	Gly
225					230					235					240
Gly	Gly	Ser	Thr	Arg	Val	Asp	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser
				245					250					255	
Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Val	Leu	Thr	Asp	Thr	Ser	Tyr
			260					265					270		
Pro	Leu	Tyr	Ser	Thr	Tyr	Trp	Tyr	Arg	Lys	Asn	Pro	Gly	Ser	Ser	Asn
		275					280					285			
Lys	Glu	Gln	Ile	Ser	Ile	Ser	Gly	Arg	Tyr	Ser	Glu	Ser	Val	Asn	Lys
	290					295					300				
Gly	Thr	Lys	Ser	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp
305					310					315					320
Ser	Ala	Thr	Tyr	Tyr	Cys	Arg	Ala	Met	Ser	Thr	Asn	Ile	Trp	Thr	Gly
				325					330					335	
Asp	Gly	Ala	Gly	Thr	Lys	Val	Glu	Ile	Lys	Gln	Ala	Cys	Lys	Ala	His
			340					345					350		
His	His	His	His	His	Gly	Ala	Glu	Phe	Glu	Gln	Lys	Leu	Ile	Ser	Glu
		355					360					365			

Glu Asp Leu
370

<210> 124
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 124

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
115 120 125

Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile
130 135 140

Thr Cys Val Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp
145 150 155 160

Tyr Arg Lys Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser
165 170 175

Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu
180 185 190

Thr Ile Ser Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg
195 200 205

Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val
210 215 220

Glu Ile Lys Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr
225 230 235 240

Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser
245 250 255

Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser
260 265 270

Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met
275 280 285

Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser
290 295 300

Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr
305 310 315 320

Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr
325 330 335

Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His
340 345 350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
355 360 365

Glu Asp Leu

370

<210> 125
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 125

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser
115 120 125

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

Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu

165

170

175

Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu
 180 185 190

Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn
 195 200 205

Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Pro Gly
 210 215 220

Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr
 225 230 235 240

Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys
 245 250 255

Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg
 260 265 270

Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg
 275 280 285

Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile
 290 295 300

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

Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr
 325 330 335

Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His
 340 345 350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
 355 360 365

Glu Asp Leu
 370

<210> 126
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 126

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

Gly Thr Val Leu Thr Val Asn Pro Gly Val Gln Pro Ser Pro Gly Gly
225 230 235 240

Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser
245 250 255

Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser Tyr
260 265 270

Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn
275 280 285

Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys
290 295 300

Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp
305 310 315 320

Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly
325 330 335

Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Cys Lys Ala His
340 345 350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
355 360 365

Glu Asp Leu
370

<210> 127

<211> 373
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 127

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro
115 120 125

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

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
145 150 155 160

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
165 170 175

Ser Glu Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser

180

185

190

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
 195 200 205

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
 210 215 220

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn
 225 230 235 240

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
 245 250 255

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
 260 265 270

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
 275 280 285

Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu
 290 295 300

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
 305 310 315 320

Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn
 325 330 335

Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys
 340 345 350

Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile
 355 360 365

Ser Glu Glu Asp Leu
 370

<210> 128

<211> 373

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 128

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

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

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

Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn Tyr
130 135 140

Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn
145 150 155 160

Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys
165 170 175

Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp
180 185 190

Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro
195 200 205

Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
210 215 220

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn
225 230 235 240

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
245 250 255

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
260 265 270

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
275 280 285

Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu
290 295 300

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
305 310 315 320

Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn
325 330 335

Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys
340 345 350

Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile
355 360 365

Ser Glu Glu Asp Leu
370

<210> 129
<211> 373
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 129

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
115 120 125

Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile
130 135 140

Thr Cys Val Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp
145 150 155 160

Tyr Arg Lys Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser
165 170 175

Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu
180 185 190

Thr Ile Ser Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg

195

200

205

Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val
 210 215 220

Glu Ile Lys Pro Gly Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Ala
 225 230 235 240

Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser
 245 250 255

Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala
 260 265 270

Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile
 275 280 285

Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met Ser
 290 295 300

Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr
 305 310 315 320

Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val Gln
 325 330 335

Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys
 340 345 350

Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile
 355 360 365

Ser Glu Glu Asp Leu
 370

<210> 130
 <211> 256
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 130

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Pro Gly Val Gln Pro Ala Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
115 120 125

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
130 135 140

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
145 150 155 160

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
165 170 175

Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu
180 185 190

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
195 200 205

Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala
210 215 220

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His
225 230 235 240

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250 255

<210> 131
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 131

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Pro Gly Val Gln Pro Ala Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
115 120 125

Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile
130 135 140

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
145 150 155 160

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
165 170 175

Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu
180 185 190

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
195 200 205

Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala
210 215 220

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

Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser
245 250 255

Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser Tyr
260 265 270

Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn
275 280 285

Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys
290 295 300

Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp
305 310 315 320

Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly
325 330 335

Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Cys Lys Ala His

340

345

350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
 355 360 365

Glu Asp Leu
 370

<210> 132
 <211> 371
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 132

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Pro Gly Val Gln Pro Ala Pro Gly Gly Gly Gly Ser Thr Arg Val Asp
 115 120 125

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

130

135

140

Thr Cys Val Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp
 145 150 155 160

Tyr Arg Lys Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser
 165 170 175

Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu
 180 185 190

Thr Ile Ser Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg
 195 200 205

Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val
 210 215 220

Glu Ile Lys Pro Gly Val Gln Pro Ala Pro Gly Gly Gly Gly Ser Thr
 225 230 235 240

Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser
 245 250 255

Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser
 260 265 270

Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met
 275 280 285

Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser
 290 295 300

Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr
 305 310 315 320

Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr
 325 330 335

Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His
 340 345 350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
355 360 365

Glu Asp Leu
370

<210> 133
<211> 256
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 133

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His
225 230 235 240

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250 255

<210> 134
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 134

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ala Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser
115 120 125

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

Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu
165 170 175

Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu
180 185 190

Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn
195 200 205

Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Pro Gly
210 215 220

Val Gln Pro Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr
225 230 235 240

Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys
245 250 255

Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg
260 265 270

Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg

275

280

285

Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile
 290 295 300

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

Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr
 325 330 335

Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Lys Ala His
 340 345 350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
 355 360 365

Glu Asp Leu
 370

<210> 135
 <211> 371
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 135

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

65

70

75

80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

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

Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser
245 250 255

Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser Tyr
260 265 270

Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn
275 280 285

Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys
290 295 300

Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp
305 310 315 320

Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly
325 330 335

Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Cys Lys Ala His
340 345 350

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
355 360 365

Glu Asp Leu
370

<210> 136
<211> 366
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 136

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser
115 120 125

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

Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu
165 170 175

Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu
180 185 190

Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn
195 200 205

Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Pro Gly
210 215 220

Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr
225 230 235 240

Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys
245 250 255

Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg
260 265 270

Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg
275 280 285

Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile

290

295

300

Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg
 305 310 315 320

Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr
 325 330 335

Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His His His
 340 345 350

Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 355 360 365

<210> 137

<211> 366

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 137

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
 85 90 95

Gly Thr Lys Val Glu Ile Lys Pro Gly Val Gln Pro Ser Pro Gly Gly

100

105

110

Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu
 115 120 125

Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr
 130 135 140

Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp
 145 150 155 160

Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys
 165 170 175

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

Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu
 195 200 205

Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Pro Gly
 210 215 220

Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr
 225 230 235 240

Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys
 245 250 255

Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg
 260 265 270

Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg
 275 280 285

Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile
 290 295 300

Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg
 305 310 315 320

Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr
325 330 335

Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His His His
340 345 350

Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
355 360 365

<210> 138
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 138

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Leu Ala
195 200 205

Ile Ser Thr Arg Ser Tyr Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr
210 215 220

Val Asn Gln Ala Cys Lys Ala His His His His His His Gly Ala Glu
225 230 235 240

Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 139
<211> 366
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 139

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser
115 120 125

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

Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro
145 150 155 160

Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu
165 170 175

Ser Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu
180 185 190

Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn
195 200 205

Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Pro Gly
210 215 220

Val Gln Pro Ser Pro Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr
225 230 235 240

Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys
245 250 255

Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg

260

265

270

Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg
 275 280 285

Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile
 290 295 300

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

Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp Tyr Asp Gly Ala Gly Thr
 325 330 335

Val Leu Thr Val Asn Gln Ala Cys Lys Ala His His His His His His
 340 345 350

Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 355 360 365

<210> 140
 <211> 250
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 140

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

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

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

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

Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ser Ala Thr

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

<210> 141
 <211> 250
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

<400> 141

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

Gly Thr Lys Val Glu Ile Lys Pro Gly Val Gln Pro Ala Pro Gly Gly
100 105 110

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

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn
130 135 140

Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
145 150 155 160

Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn
165 170 175

Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
180 185 190

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala
195 200 205

Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val
210 215 220

Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu Phe
225 230 235 240

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 142
<211> 250
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 142

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

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

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

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn
130 135 140

Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
145 150 155 160

Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn
165 170 175

Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
180 185 190

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala
195 200 205

Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val
210 215 220

Asn Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe
225 230 235 240

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 143
<211> 250
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 143

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

Gly Thr Lys Val Glu Ile Lys Pro Gly Val Gln Pro Ala Pro Gly Gly
100 105 110

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

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn
130 135 140

Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
145 150 155 160

Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn
165 170 175

Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
180 185 190

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala
195 200 205

Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val
210 215 220

Asn Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe
225 230 235 240

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 144

<211> 271
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 144

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala
130 135 140

Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp
145 150 155 160

Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly
165 170 175

Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser

180

185

190

Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr
 195 200 205

Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala
 210 215 220

Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly
 225 230 235 240

Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His
 245 250 255

His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265 270

<210> 145
 <211> 269
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 145

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly

85

90

95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro
 130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
 165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
 180 185 190

Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys
 195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu
 210 215 220

Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val
 225 230 235 240

Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His His Gly
 245 250 255

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265

<210> 146

<211> 269

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 146

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
210 215 220

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
225 230 235 240

Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His His Gly
245 250 255

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
260 265

<210> 147
<211> 271
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 147

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys
165 170 175

Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr
180 185 190

Val Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys
195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro
210 215 220

Trp Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly
225 230 235 240

Thr Val Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His
245 250 255

His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
260 265 270

<210> 148
<211> 271
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 148

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala
130 135 140

Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp
145 150 155 160

Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly
165 170 175

Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser
180 185 190

Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr
195 200 205

Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala
210 215 220

Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly

225 230 235 240
 Thr Val Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His
 245 250 255
 His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265 270

 <210> 149
 <211> 269
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 149
 Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 1 5 10 15
 Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
 20 25 30
 Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45
 Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60
 Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 65 70 75 80
 Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95
 His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
 100 105 110
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125
 Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro

130

135

140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
 165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
 180 185 190

Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys
 195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu
 210 215 220

Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val
 225 230 235 240

Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His His Gly
 245 250 255

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265

<210> 150
 <211> 269
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 150

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg

35

40

45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
 130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
 145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
 165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
 180 185 190

Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
 210 215 220

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
 225 230 235 240

Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His His Gly
 245 250 255

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
260 265

<210> 151
<211> 394
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 151

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu
130 135 140

Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp
145 150 155 160

Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly
165 170 175

Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser
180 185 190

Val Asn Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln
195 200 205

Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile
210 215 220

Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gly Gly Gly
225 230 235 240

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly
245 250 255

Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala
260 265 270

Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp
275 280 285

Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly
290 295 300

Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser
305 310 315 320

Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr
325 330 335

Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His
340 345 350

Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val
355 360 365

Asn Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe

370

375

380

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
385 390

<210> 152
<211> 399
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 152

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu
130 135 140

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

145		150		155		160
Thr	Ser	Tyr	Pro	Leu	Tyr	Gly
			165			175
Ser	Ser	Asn	Lys	Glu	Gln	Ser
			180			185
						190
Val	Asn	Lys	Gly	Thr	Lys	Ser
			195			200
						205
Pro	Glu	Asp	Ser	Ala	Thr	Tyr
						215
						220
Trp	Thr	Gly	Asp	Gly	Ala	Gly
225					230	
						235
Gly	Ser	Gly	Gly	Gly	Gly	Ser
						245
						250
						255
Ser	Gly	Gly	Gly	Gly	Ser	Ala
						260
						265
						270
Thr	Lys	Glu	Thr	Gly	Glu	Ser
						275
						280
						285
Thr	Ser	Tyr	Gly	Leu	Tyr	Ser
						290
						295
						300
Thr	Thr	Asp	Trp	Glu	Arg	Met
305						310
						315
						320
Val	Asn	Lys	Arg	Ala	Lys	Ser
						325
						330
						335
Val	Ala	Asp	Ser	Ala	Thr	Tyr
						340
						345
						350
Ile	Ser	Thr	Gly	Ser	Gly	His
						355
						360
						365

Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His
370 375 380

His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
385 390 395

<210> 153
<211> 399
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 153

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro
130 135 140

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val
145 150 155 160

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
165 170 175

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
180 185 190

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

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
210 215 220

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
245 250 255

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
260 265 270

Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val
275 280 285

Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys
290 295 300

Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr
305 310 315 320

Val Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys
325 330 335

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro
340 345 350

Trp Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly

355

360

365

Thr Val Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His
 370 375 380

His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 385 390 395

<210> 154
 <211> 399
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 154

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro

130

135

140

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val
 145 150 155 160

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
 165 170 175

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
 180 185 190

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

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
 210 215 220

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
 225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 245 250 255

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
 260 265 270

Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val
 275 280 285

Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys
 290 295 300

Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr
 305 310 315 320

Val Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys
 325 330 335

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro
 340 345 350

Trp Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly
355 360 365

Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His
370 375 380

His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
385 390 395

<210> 155
<211> 397
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 155

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro
130 135 140

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val
145 150 155 160

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
165 170 175

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
180 185 190

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

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
210 215 220

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
245 250 255

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro
260 265 270

Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val
275 280 285

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
290 295 300

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
305 310 315 320

Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys
325 330 335

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu

340

345

350

Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val
 355 360 365

Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His His Gly
 370 375 380

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 385 390 395

<210> 156

<211> 397

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 156

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

115

120

125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
 130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
 145 150 155 160

Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
 165 170 175

Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn
 180 185 190

Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr
 210 215 220

Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser
 225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 245 250 255

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

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
 275 280 285

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
 290 295 300

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
 305 310 315 320

Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 325 330 335

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
340 345 350

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
355 360 365

Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His Gly
370 375 380

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
385 390 395

<210> 157
<211> 397
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 157

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
165 170 175

Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn
180 185 190

Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr
210 215 220

Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser
225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
245 250 255

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

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
275 280 285

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
290 295 300

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
305 310 315 320

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

325

330

335

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
 340 345 350

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
 355 360 365

Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His His Gly
 370 375 380

Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 385 390 395

<210> 158

<211> 266

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 158

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser

100

105

110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
 130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn
 145 150 155 160

Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
 165 170 175

Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn
 180 185 190

Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala
 210 215 220

Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val
 225 230 235 240

Asn Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe
 245 250 255

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265

<210> 159

<211> 255

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 159

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu

1	5	10	15
Ser	Leu	Thr	Ile
	20		
Asn	Cys	Val	Leu
		25	
Thr	Asp	Thr	Ser
			Tyr
Gly	Leu	Tyr	
	30		
Ser	Thr	Ser	Trp
	35		
Phe	Arg	Lys	Asn
		40	
Pro	Gly	Thr	Thr
			Asp
Trp	Glu	Arg	
			45
Met	Ser	Ile	Gly
	50		
Gly	Gly	Arg	Tyr
		55	
Val	Glu	Ser	Val
			Asn
Lys	Gly	Ala	Lys
			60
Ser	Phe	Ser	Leu
	65		
Arg	Ile	Lys	Asp
	70		
Leu	Thr	Val	Ala
		75	
Asp	Ser	Ala	Thr
			80
Tyr	Tyr	Cys	Lys
			85
Ala	Arg	Glu	Ala
			Arg
His	Pro	Trp	Leu
			Arg
Gln	Trp		
			95
Tyr	Asp	Gly	Ala
			100
Gly	Thr	Val	Leu
			105
Val	Asn	Gly	Gly
			110
Gly	Gly	Ser	Gly
			115
Gly	Gly	Gly	Gly
			120
Gly	Gly	Gly	Gly
			125
Gly	Gly	Ser	Gly
			130
Gly	Ser	Ala	Ser
			135
Val	Asn	Gln	Thr
			Pro
Arg	Thr	Ala	Thr
			Lys
			140
Glu	Thr	Gly	Glu
	145		
Ser	Leu	Thr	Ile
	150		
Asn	Cys	Val	Leu
		155	
Thr	Asp	Thr	Ser
			160
Tyr	Gly	Leu	Tyr
			165
Ser	Thr	Ser	Trp
			Phe
Arg	Lys	Asn	Pro
			Gly
Thr	Thr		
			175
Asp	Trp	Glu	Arg
			180
Met	Ser	Ile	Gly
			Gly
Arg	Tyr	Val	Glu
			Ser
Val	Asn		
			190
Lys	Arg	Ala	Lys
			195
Ser	Phe	Ser	Leu
			200
Arg	Ile	Lys	Asp
			Leu
Thr	Val	Ala	
			205
Asp	Ser	Ala	Thr
	210		
Tyr	Tyr	Cys	Lys
		215	
Ala	Gln	Ser	Gly
			220
Met	Ala	Ile	Ser

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
225 230 235 240

Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His His
245 250 255

<210> 160
<211> 246
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 160

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn
145 150 155 160

Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
165 170 175

Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala
210 215 220

Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val
225 230 235 240

Asn Ser Ala Pro Ser Ala
245

<210> 161
<211> 260
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 161

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
165 170 175

Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn
180 185 190

Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr
210 215 220

Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Cys Gly Ala
225 230 235 240

His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser
245 250 255

Glu Glu Asp Leu
260

<210> 162

<211> 260
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 162

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
165 170 175

Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn

180

185

190

Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr
 210 215 220

Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser Gly Ala
 225 230 235 240

His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser
 245 250 255

Glu Glu Asp Leu
 260

<210> 163
 <211> 260
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 163

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala

85

90

95

Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly
 100 105 110

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 115 120 125

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 130 135 140

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
 145 150 155 160

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 165 170 175

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 180 185 190

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 195 200 205

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
 210 215 220

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala
 225 230 235 240

His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser
 245 250 255

Glu Glu Asp Leu
 260

<210> 164
 <211> 402
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 164

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
225 230 235 240

Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly
245 250 255

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
260 265 270

Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
275 280 285

Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser Tyr Pro
290 295 300

Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Lys
305 310 315 320

Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly
325 330 335

Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ser
340 345 350

Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp
355 360 365

Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser Gly Ala His His
370 375 380

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
385 390 395 400

Asp Leu

<210> 165

<211> 402
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 165

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr

180

185

190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
 195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
 210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
 225 230 235 240

Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly
 245 250 255

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
 260 265 270

Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
 275 280 285

Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser Tyr Pro
 290 295 300

Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Lys
 305 310 315 320

Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly
 325 330 335

Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Ser
 340 345 350

Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp
 355 360 365

Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Cys Gly Ala His His
 370 375 380

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
 385 390 395 400

Asp Leu

<210> 166
<211> 402
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 166

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Asp Ile Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro
130 135 140

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val
145 150 155 160

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
165 170 175

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
180 185 190

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

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
210 215 220

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
245 250 255

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Lys Val Asp Gln Thr Pro
260 265 270

Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val
275 280 285

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
290 295 300

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
305 310 315 320

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
325 330 335

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
340 345 350

Gly Met Ala Ile Asp Ile Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
355 360 365

Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His

370

375

380

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
 385 390 395 400

Asp Leu

<210> 167
 <211> 402
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 167

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro

130

135

140

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val
 145 150 155 160

Leu Thr Asp Thr Ser Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys
 165 170 175

Asn Pro Gly Ser Ser Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr
 180 185 190

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

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser
 210 215 220

Thr Asn Ile Trp Thr Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
 225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 245 250 255

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
 260 265 270

Arg Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val
 275 280 285

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
 290 295 300

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
 305 310 315 320

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
 325 330 335

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
 340 345 350

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
355 360 365

Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His
370 375 380

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
385 390 395 400

Asp Leu

<210> 168
<211> 392
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 168

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Pro Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
165 170 175

Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn
180 185 190

Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr
210 215 220

Gly Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser
225 230 235 240

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
245 250 255

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
260 265 270

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
275 280 285

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
290 295 300

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
305 310 315 320

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

325

330

335

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
 340 345 350

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln
 355 360 365

Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln
 370 375 380

Lys Leu Ile Ser Glu Glu Asp Leu
 385 390

<210> 169
 <211> 262
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 169

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
 85 90 95

Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly

100

105

110

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 115 120 125

Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 130 135 140

Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala
 145 150 155 160

Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg
 165 170 175

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 180 185 190

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 195 200 205

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
 210 215 220

Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser
 225 230 235 240

Gly Ala His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
 245 250 255

Ile Ser Glu Glu Asp Leu
 260

<210> 170
 <211> 249
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 170

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

1	5	10	15
Ser	Leu	Thr	Ile
	20		
Asn	Cys	Val	Val
		25	
Thr	Gly	Ala	Asn
			30
Tyr	Gly	Leu	Ala
Ala	Thr	Tyr	Trp
	35		
Tyr	Arg	Lys	Asn
		40	
Pro	Gly	Ser	Ser
			45
Asn	Gln	Glu	Arg
Ile	Ser	Ile	Ser
	50		
Gly	Arg	Tyr	Val
		55	
Glu	Ser	Val	Asn
			60
Lys	Arg	Thr	Met
Ser	Phe	Ser	Leu
	65		
Arg	Ile	Lys	Asp
	70		
Leu	Thr	Val	Ala
		75	
Asp	Ser	Ala	Thr
			80
Tyr	Tyr	Cys	Lys
			85
Ala	Tyr	Pro	Trp
Gly	Ala	Gly	Ala
	90		
Pro	Trp	Leu	Val
		95	
Gln	Trp	Tyr	Asp
		100	
Gly	Ala	Gly	Thr
			105
Val	Leu	Thr	Val
Asn	Ser	Pro	Ser
			110
Thr	Pro	Pro	Thr
	115		
Pro	Pro	Ala	Thr
			125
Arg	Val	Asp	Gln
Ser	Pro	Ser	Ser
	130		
Leu	Ser	Ala	Ser
		135	
Val	Gly	Asp	Arg
			140
Val	Thr	Ile	Thr
Cys	Val	Leu	Thr
	145		
Asp	Thr	Ser	Tyr
		150	
Pro	Leu	Tyr	Ser
		155	
Thr	Tyr	Trp	Tyr
			160
Arg	Lys	Asn	Pro
			165
Gly	Ser	Ser	Asn
Lys	Glu	Gln	Ile
	170		
Ser	Ile	Ser	Gly
			175
Arg	Tyr	Ser	Glu
			180
Ser	Val	Asn	Lys
Gly	Thr	Lys	Ser
			185
Phe	Thr	Leu	Thr
			190
Ile	Ser	Ser	Leu
	195		
Gln	Pro	Glu	Asp
			200
Ser	Ala	Thr	Tyr
Tyr	Tyr	Cys	Arg
			205
Ala			
Met	Ser	Thr	Asn
	210		
Ile	Trp	Thr	Gly
			215
Asp	Gly	Ala	Gly
			220
Thr	Lys	Val	Glu

Ile Lys Ala Cys Ala His His His His His His Gly Ala Glu Phe Glu
225 230 235 240

Gln Lys Leu Ile Ser Glu Glu Asp Leu
245

<210> 171
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 171

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

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

Pro Thr Pro Pro Ala Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr
115 120 125

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala
130 135 140

Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser
145 150 155 160

Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val
165 170 175

Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
180 185 190

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly
195 200 205

Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr
210 215 220

Val Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu
225 230 235 240

Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 172
<211> 283
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 172

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

Gly Thr Lys Val Glu Ile Lys Ala Glu Ala Ala Ala Lys Glu Ala Ala
100 105 110

Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Ala Leu Glu Ala
115 120 125

Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu
130 135 140

Ala Ala Ala Lys Ala Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr
145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala
165 170 175

Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser
180 185 190

Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly
225 230 235 240

Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr
245 250 255

Val Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu
260 265 270

Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu

275

280

<210> 173
 <211> 264
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 173

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
 85 90 95

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

Pro Thr Pro Pro Ser Pro Ser Thr Pro Pro Thr Pro Ser Pro Thr Pro
 115 120 125

Pro Ala Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr
 130 135 140

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

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

165

170

175

Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg
 180 185 190

Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser
 195 200 205

Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp
 210 215 220

Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln
 225 230 235 240

Ala Cys Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln
 245 250 255

Lys Leu Ile Ser Glu Glu Asp Leu
 260

<210> 174

<211> 249

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 174

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

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

<210> 175
 <211> 251
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

<400> 175

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

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

Pro Thr Pro Pro Ala Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr
115 120 125

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala
130 135 140

Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser
145 150 155 160

Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val
165 170 175

Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
180 185 190

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly
195 200 205

Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr
210 215 220

Val Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu
225 230 235 240

Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 176
<211> 283
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 176

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

Gly Thr Lys Val Glu Ile Lys Ala Glu Ala Ala Ala Lys Glu Ala Ala
100 105 110

Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Ala Leu Glu Ala
115 120 125

Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu
130 135 140

Ala Ala Ala Lys Ala Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr
145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala
165 170 175

Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser
180 185 190

Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly
225 230 235 240

Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr
245 250 255

Val Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu
260 265 270

Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280

<210> 177
<211> 264
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 177

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

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

Pro Thr Pro Pro Ser Pro Ser Thr Pro Pro Thr Pro Ser Pro Thr Pro
115 120 125

Pro Ala Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr
130 135 140

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

Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Gln
165 170 175

Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg
180 185 190

Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser
195 200 205

Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp
210 215 220

Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln

225		230		235		240
Ala	Cys	Gly	Ala	His	His	His
			245			
				His	His	His
				250		
					Gly	Ala
					Glu	Phe
					Glu	Gln
					255	
Lys	Leu	Ile	Ser	Glu	Glu	Asp
			260			Leu
<210>	178					
<211>	256					
<212>	PRT					
<213>	Artificial Sequence					
<220>						
<223>	Artificial Sequence					
<400>	178					
Thr	Arg	Val	Asp	Gln	Thr	Pro
1				5		
					Arg	Thr
					10	
						Ala
						Thr
						Lys
						Glu
						Thr
						Gly
						15
						Glu
Ser	Leu	Thr	Ile	Asn	Cys	Val
			20			
						Leu
						25
						Thr
						Asp
						Thr
						Ser
						Tyr
						Gly
						30
						Leu
						Tyr
Ser	Thr	Ser	Trp	Phe	Arg	Lys
						40
						Asn
						Pro
						Gly
						Thr
						Thr
						Asp
						45
						Trp
						Glu
						Arg
Met	Ser	Ile	Gly	Gly	Arg	Tyr
						55
						Val
						Glu
						Ser
						Val
						Asn
						60
						Lys
						Gly
						Ala
						Lys
Ser	Phe	Ser	Leu	Arg	Ile	Lys
65						70
						Asp
						Leu
						Thr
						Val
						75
						Ala
						Asp
						Ser
						Ala
						Thr
Tyr	Tyr	Cys	Lys	Ala	Arg	Glu
						85
						Ala
						Arg
						His
						90
						Pro
						Trp
						Leu
						Arg
						Gln
						95
						Trp
Tyr	Asp	Gly	Ala	Gly	Thr	Val
						100
						Leu
						Thr
						Val
						Asn
						Gly
						105
						Gly
						Gly
						110
						Gly
						Gly
						Ser
Gly	Gly	Gly	Gly	Ser	Gly	Gly
						115
						Gly
						Gly
						120
						Ser
						Ala
						Ser
						Val
						Asn
						Gln
						125
						Thr
Pro	Arg	Thr	Ala	Thr	Lys	Glu
						Thr
						Gly
						Glu
						Ser
						Leu
						Thr
						Ile
						Asn
						Cys

130

135

140

Val Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg
 145 150 155 160

Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg
 165 170 175

Tyr Val Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile
 180 185 190

Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr
 195 200 205

Pro Trp Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala
 210 215 220

Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His
 225 230 235 240

His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 245 250 255

<210> 179
 <211> 276
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 179

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

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

50

55

60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser
 130 135 140

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

Thr Ile Asn Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr
 165 170 175

Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser
 180 185 190

Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met Ser Phe
 195 200 205

Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr
 210 215 220

Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val Gln Trp
 225 230 235 240

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala
 245 250 255

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser
 260 265 270

Glu Glu Asp Leu
275

<210> 180
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 180

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
85 90 95

Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly
100 105 110

Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala
115 120 125

Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly
130 135 140

Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly
145 150 155 160

Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser
165 170 175

Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr
180 185 190

Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala
195 200 205

Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu
210 215 220

Thr Val Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala
225 230 235 240

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
245 250

<210> 181
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 181

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
100 105

<210> 182
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 182

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 183
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 183

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ala His His His His His
115 120

<210> 184
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 184

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

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

Gly Ala

<210> 185
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 185

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

50

55

60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
 85 90 95

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

Gly Ala His His His His His His
 115 120

<210> 186
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 186

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
 85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys

100

105

110

Lys Ala His His His His His His
 115 120

<210> 187

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 187

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
 85 90 95

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

Ser Ala

<210> 188

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 188

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Thr Pro Pro Thr Pro Ser Pro Thr Pro Pro Ala
115 120

<210> 189

<211> 134

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 189

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 190
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 190

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser
115 120 125

Glu Glu Asp Leu
130

<210> 191
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 191

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

His His His His His His His
115

<210> 192
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 192

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
100 105

<210> 193
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 193

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
130 135

<210> 194

<211> 137

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 194

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

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr

20

25

30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Asp Ile Gly Ser Gly
 85 90 95

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

Gln Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu
 115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
 130 135

<210> 195

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 195

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met

50

55

60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Ala Met Trp Gly Gln Trp Tyr Asp
 85 90 95

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

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
 115 120 125

Asp Leu
 130

<210> 196
 <211> 134
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 196

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

Tyr Tyr Cys Lys Ala Val Phe Met Pro Gln His Trp His Pro Ala Ala

85

90

95

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

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
 115 120 125

Ile Ser Glu Glu Asp Leu
 130

<210> 197

<211> 103

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 197

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

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

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

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

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

Tyr Tyr Cys Arg Ala Met Ser Thr Asn Ile Trp Thr Gly Asp Gly Ala
 85 90 95

Gly Thr Lys Val Glu Ile Lys
 100

<210> 198

<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 198

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

Arg Val Thr Ile Thr Cys Val Leu Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

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

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

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

Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser
100 105 110

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 199
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 199

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

Arg Val Thr Ile Thr Cys Val Leu Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser
100 105 110

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 200
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 200

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

Arg Val Thr Ile Thr Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser
100 105 110

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 201
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 201

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

Arg Val Thr Ile Thr Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser
100 105 110

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 202
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 202

Ala Ser Val Asp Gln Ser Pro Ser Ser Ala Ser Ala Ser Val Gly Asp
1 5 10 15

Arg Leu Thr Ile Thr Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 203
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 203

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
100 105 110

Gln Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu
115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
130 135

<210> 204
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 204

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
100 105 110

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
130 135

<210> 205
<211> 137
<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 205

Ala Ser Val Asn Gln Ser Pro Ser Ser Ala Ser Ala Ser Val Gly Asp
1 5 10 15

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Leu Glu Val Lys
100 105 110

Gln Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu
115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
130 135

<210> 206

<211> 137

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 206

Ala Ser Val Asn Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp

1	5	10	15
Arg Val Thr	Ile Thr Cys Val	Leu Thr Asp Thr Ser Tyr	Gly Leu Tyr
	20	25	30
Ser Thr Ser	Trp Phe Arg Lys	Asn Pro Gly Thr Thr	Asp Trp Glu Arg
	35	40	45
Met Ser Ile	Gly Gly Arg Tyr	Val Glu Ser Val	Asn Lys Arg Ala Lys
	50	55	60
Ser Phe Ser	Leu Arg Ile Lys	Asp Leu Thr Val	Ala Asp Ser Ala Thr
65	70	75	80
Tyr Tyr Cys	Lys Ala Gln Ser	Gly Met Ala Ile Ser	Thr Gly Ser Gly
	85	90	95
His Gly Tyr	Asn Trp Tyr Asp	Gly Ala Gly Thr	Lys Val Glu Ile Lys
	100	105	110
Gln Ala Ser	Gly Ala His His	His His His His	Gly Ala Glu Phe Glu
	115	120	125
Gln Lys Leu	Ile Ser Glu Glu	Asp Leu	
	130	135	

<210> 207
 <211> 137
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 207

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg

35

40

45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
 100 105 110

Gln Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu
 115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
 130 135

<210> 208

<211> 137

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 208

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Phe Ser Gly Ser Gly Ser Lys Arg Ala Lys
 50 55 60

Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr

65		70		75		80									
Tyr	Tyr	Cys	Lys	Ala	Gln	Ser	Gly	Met	Ala	Ile	Ser	Thr	Gly	Ser	Gly
			85					90					95		
His	Gly	Tyr	Asn	Trp	Tyr	Asp	Gly	Ala	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105					110		
Gln	Ala	Ser	Gly	Ala	His	His	His	His	His	His	Gly	Ala	Glu	Phe	Glu
		115					120					125			
Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu							
	130					135									
<210> 209															
<211> 137															
<212> PRT															
<213> Artificial Sequence															
<220>															
<223> Artificial Sequence															
<400> 209															
Ala	Ser	Val	Asn	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly	Asp
1			5						10					15	
Arg	Val	Thr	Ile	Thr	Cys	Val	Leu	Thr	Asp	Thr	Ser	Tyr	Gly	Leu	Tyr
			20				25						30		
Ser	Thr	Ser	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Thr	Thr	Asp	Trp	Glu	Arg
		35					40					45			
Met	Ser	Ile	Gly	Gly	Arg	Tyr	Val	Glu	Ser	Val	Asn	Lys	Arg	Ala	Lys
	50					55					60				
Ser	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr
65					70				75					80	
Tyr	Tyr	Cys	Lys	Ala	Gln	Ser	Gly	Met	Ala	Ile	Ser	Thr	Gly	Ser	Gly
			85					90					95		
His	Gly	Tyr	Asn	Trp	Tyr	Asp	Gly	Ala	Gly	Thr	Lys	Val	Glu	Ile	Lys

100

105

110

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
 115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu
 130 135

<210> 210

<211> 137

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 210

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

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

Ser Thr Ser Trp Tyr Gln Gln Lys Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Phe Ser Gly Ser Gly Ser Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
 100 105 110

Gln Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu
 115 120 125

Gln Lys Leu Ile Ser Glu Glu Asp Leu

130

135

<210> 211
 <211> 264
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 211

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
 130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
 145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr

165

170

175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
 180 185 190

Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
 210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln
 225 230 235 240

Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu Gln
 245 250 255

Lys Leu Ile Ser Glu Glu Asp Leu
 260

<210> 212

<211> 250

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 212

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

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

<210> 213
 <211> 244
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

<400> 213

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Ser
225 230 235 240

Ala Pro Ser Ala

<210> 214
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 214

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
225 230 235 240

Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His
245 250 255

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
260 265 270

Asp Leu

<210> 215
<211> 260
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 215

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp

225					230					235					240
Gly	Ala	Gly	Thr	Val	Leu	Thr	Val	Asn	Gln	Ala	Ser	Gly	Ala	His	His
				245					250					255	
His	His	His	His												
			260												
<210>	216														
<211>	268														
<212>	PRT														
<213>	Artificial Sequence														
<220>															
<223>	Artificial Sequence														
<400>	216														
Thr	Arg	Val	Asp	Gln	Thr	Pro	Arg	Thr	Ala	Thr	Lys	Glu	Thr	Gly	Glu
1				5					10					15	
Ser	Leu	Thr	Ile	Asn	Cys	Val	Val	Thr	Gly	Ala	Lys	Tyr	Gly	Leu	Phe
			20					25					30		
Ala	Thr	Tyr	Trp	Tyr	Arg	Lys	Asn	Pro	Gly	Ser	Ser	Asn	Gln	Glu	Arg
		35					40					45			
Ile	Ser	Ile	Ser	Gly	Arg	Tyr	Val	Glu	Ser	Val	Asn	Lys	Arg	Thr	Met
	50					55					60				
Ser	Phe	Ser	Leu	Arg	Ile	Lys	Asp	Leu	Thr	Val	Ala	Asp	Ser	Ala	Thr
65					70					75					80
Tyr	Tyr	Cys	Lys	Ala	Val	Phe	Met	Pro	Gln	His	Trp	His	Pro	Ala	Ala
				85					90					95	
His	Trp	Tyr	Asp	Gly	Ala	Gly	Thr	Val	Leu	Thr	Val	Asn	Gly	Gly	Gly
			100					105					110		
Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly
		115					120					125			
Ser	Gly	Gly	Gly	Gly	Ser	Thr	Arg	Val	Asp	Gln	Thr	Pro	Arg	Thr	Ala

130

135

140

Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr Gly
 145 150 155 160

Ala Lys Tyr Gly Leu Phe Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly
 165 170 175

Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser
 180 185 190

Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr
 195 200 205

Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Val Phe Met Pro Gln
 210 215 220

His Trp His Pro Ala Ala His Trp Tyr Asp Gly Ala Gly Thr Val Leu
 225 230 235 240

Thr Val Asn Gln Ala Ser Gly Ala His His His His His His Gly Ala
 245 250 255

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265

<210> 217

<211> 254

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 217

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg

35

40

45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
 130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
 165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
 180 185 190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
 195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
 210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
 225 230 235 240

Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Gly Ala
 245 250

<210> 218
<211> 260
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 218

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
225 230 235 240

Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala Cys Gly Ala His His
245 250 255

His His His His
260

<210> 219
<211> 264
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 219

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Gly Ala Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
195 200 205

Asp Phe Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln
225 230 235 240

Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln
245 250 255

Lys Leu Ile Ser Glu Glu Asp Leu
260

<210> 220
<211> 264
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 220

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

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

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

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

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

Tyr Tyr Cys Arg Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser
165 170 175

Asn Lys Glu Gln Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn
180 185 190

Lys Gly Thr Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu

195

200

205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Arg Glu Ala Arg His Pro Trp
 210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln
 225 230 235 240

Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln
 245 250 255

Lys Leu Ile Ser Glu Glu Asp Leu
 260

<210> 221
 <211> 264
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 221

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

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

Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Arg Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Gly Ser

100

105

110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala
 130 135 140

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Asp Thr Ser
 145 150 155 160

Tyr Gly Leu Tyr Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Thr Thr
 165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn
 180 185 190

Lys Gly Ala Lys Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Arg Glu Ala Arg His Pro Trp
 210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gln
 225 230 235 240

Ala Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln
 245 250 255

Lys Leu Ile Ser Glu Glu Asp Leu
 260

<210> 222

<211> 274

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 222

Ala Ser Val Asn Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp

1	5	10	15
Arg Val Thr	Ile Thr Cys Val	Leu Thr Asp Thr Ser Tyr	Gly Leu Tyr
	20	25	30
Ser Thr Ser	Trp Phe Arg Lys	Asn Pro Gly Thr Thr	Asp Trp Glu Arg
	35	40	45
Met Ser Ile	Gly Gly Arg Tyr	Ser Glu Ser Val	Asn Lys Gly Ala Lys
	50	55	60
Ser Phe Thr	Leu Thr Ile Ser Ser	Leu Gln Pro Glu Asp	Ser Ala Thr
65	70	75	80
Tyr Tyr Cys	Lys Ala Gln Ser Gly	Met Ala Ile Ser Thr	Gly Ser Gly
	85	90	95
His Gly Tyr	Asn Trp Tyr Asp Gly	Ala Gly Thr Lys Val	Glu Ile Lys
	100	105	110
Gly Gly Gly	Gly Ser Gly Gly Gly	Gly Ser Gly Gly Gly	Ser Gly
	115	120	125
Gly Gly Gly	Ser Gly Gly Gly Gly	Ser Ala Ser Val	Asn Gln Ser Pro
	130	135	140
Ser Ser Leu	Ser Ala Ser Val Gly	Asp Arg Val Thr Ile	Thr Cys Val
145	150	155	160
Leu Thr Asp	Thr Ser Tyr Gly	Leu Tyr Ser Thr Ser	Trp Phe Arg Lys
	165	170	175
Asn Pro Gly	Thr Thr Asp Trp Glu	Arg Met Ser Ile Gly	Gly Arg Tyr
	180	185	190
Ser Glu Ser	Val Asn Lys Gly	Ala Lys Ser Phe Thr	Leu Thr Ile Ser
	195	200	205
Ser Leu Gln	Pro Glu Asp Ser	Ala Thr Tyr Tyr Cys	Lys Ala Gln Ser
	210	215	220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
225 230 235 240

Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser Gly Ala His His
245 250 255

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
260 265 270

Asp Leu

<210> 223
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 223

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro
130 135 140

Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val
145 150 155 160

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Ser Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Thr Leu Thr Ile Ser
195 200 205

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
225 230 235 240

Gly Ala Gly Thr Lys Val Glu Ile Lys Gln Ala Ser Gly Ala His His
245 250 255

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
260 265 270

Asp Leu

<210> 224
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 224

Ala Ser Val Asn Gln Ser Pro Ser Ser Ala Ser Ala Ser Val Gly Asp
1 5 10 15

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Ser Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Leu Glu Val Lys
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Ser Pro
130 135 140

Ser Ser Ala Ser Ala Ser Val Gly Asp Arg Leu Thr Ile Thr Cys Val
145 150 155 160

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Ser Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Thr Leu Thr Ile Ser
195 200 205

Ser Leu Gln Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser

210

215

220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
 225 230 235 240

Gly Ala Gly Thr Lys Leu Glu Val Lys Gln Ala Ser Gly Ala His His
 245 250 255

His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu
 260 265 270

Asp Leu

<210> 225
 <211> 268
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 225

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

Arg Val Thr Ile Thr Cys Val Leu Thr Gly Ala Asn Tyr Gly Leu Ala
 20 25 30

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

Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

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

Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
 85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys Gly Gly Gly

100

105

110

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Ser Pro Ser Ser Leu
 130 135 140

Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Val Leu Thr Gly
 145 150 155 160

Ala Asn Tyr Gly Leu Ala Ser Thr Tyr Trp Tyr Arg Lys Asn Pro Gly
 165 170 175

Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Ser Glu Ser
 180 185 190

Val Asn Lys Arg Thr Met Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln
 195 200 205

Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala
 210 215 220

Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val
 225 230 235 240

Glu Ile Lys Gln Ala Ser Gly Ala His His His His His His Gly Ala
 245 250 255

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265

<210> 226

<211> 268

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 226

Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp

1	5	10	15
Arg Val Thr	Ile Thr Cys Val	Leu Thr Gly Ala Asn Tyr	Gly Leu Ala
	20	25	30
Ser Thr Tyr	Trp Tyr Arg Lys	Asn Pro Gly Ser Ser	Asn Lys Glu Gln
	35	40	45
Ile Ser Ile	Ser Gly Arg Tyr	Ser Glu Ser Val	Asn Lys Gly Thr Lys
	50	55	60
Ser Phe Thr	Leu Thr Ile Ser	Ser Leu Gln Pro Glu Asp	Ser Ala Thr
65	70	75	80
Tyr Tyr Cys	Arg Ala Tyr Pro	Trp Gly Ala Gly Ala	Pro Trp Leu Val
	85	90	95
Gln Trp Tyr	Asp Gly Ala Gly	Thr Lys Val Glu Ile	Lys Gly Gly Gly
	100	105	110
Gly Ser Gly	Gly Gly Gly Ser	Gly Gly Gly Gly	Ser Gly Gly Gly Gly
	115	120	125
Ser Gly Gly	Gly Gly Ser Thr	Arg Val Asp Gln	Ser Pro Ser Ser Leu
	130	135	140
Ser Ala Ser	Val Gly Asp Arg	Val Thr Ile Thr	Cys Val Leu Thr Gly
145	150	155	160
Ala Asn Tyr	Gly Leu Ala Ser	Thr Tyr Trp Tyr	Arg Lys Asn Pro Gly
	165	170	175
Ser Ser Asn	Lys Glu Gln Ile	Ser Ile Ser Gly	Arg Tyr Ser Glu Ser
	180	185	190
Val Asn Lys	Gly Thr Lys Ser	Phe Thr Leu Thr	Ile Ser Ser Leu Gln
	195	200	205
Pro Glu Asp	Ser Ala Thr Tyr	Tyr Cys Arg Ala	Tyr Pro Trp Gly Ala
	210	215	220

Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Lys Val
225 230 235 240

Glu Ile Lys Gln Ala Ser Gly Ala His His His His His His Gly Ala
245 250 255

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
260 265

<210> 227
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 227

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Arg Gly
115 120 125

Pro Thr Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu
130 135 140

Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val
145 150 155 160

Leu Met Ile Ser Leu Ser Pro Ile Val Thr Cys Val Val Val Asp Val
165 170 175

Ser Glu Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val
180 185 190

Glu Val His Thr Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser
195 200 205

Thr Leu Arg Val Val Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met
210 215 220

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

Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro
245 250 255

Gln Val Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln
260 265 270

Val Thr Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr
275 280 285

Val Glu Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr
290 295 300

Glu Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu
305 310 315 320

Arg Val Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser
325 330 335

Val Val His Glu Gly Leu His Asn His His Thr Thr Lys Ser Phe Ser

340

345

350

Arg Thr Pro Gly Lys
355

<210> 228

<211> 355

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 228

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Arg Gly Pro Thr
115 120 125

Ile Lys Pro Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly
130 135 140

Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met

145		150		155		160
Ile Ser Leu Ser Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu		165		170		175
Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val		180		185		190
His Thr Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu		195		200		205
Arg Val Val Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly		210		215		220
Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile		225		230		235
						240
Glu Arg Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val		245		250		255
Tyr Val Leu Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr		260		265		270
Leu Thr Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu		275		280		285
Trp Thr Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro		290		295		300
Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val		305		310		315
						320
Glu Lys Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val		325		330		335
His Glu Gly Leu His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr		340		345		350
Pro Gly Lys						
		355				

<210> 229
<211> 356
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 229

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser
115 120 125

Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
130 135 140

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

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
165 170 175

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
180 185 190

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
195 200 205

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
210 215 220

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
225 230 235 240

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
245 250 255

Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
260 265 270

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
275 280 285

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
290 295 300

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

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
325 330 335

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
340 345 350

Ser Pro Gly Lys
355

<210> 230
<211> 356
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 230

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

Arg Val Thr Ile Thr Cys Val Leu Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

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

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

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

Tyr Tyr Cys Arg Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser
115 120 125

Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
130 135 140

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

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
165 170 175

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
180 185 190

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

195

200

205

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 210 215 220

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 225 230 235 240

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 245 250 255

Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
 260 265 270

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 275 280 285

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 290 295 300

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

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 325 330 335

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 340 345 350

Ser Pro Gly Lys
 355

<210> 231
 <211> 356
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 231

Thr Arg Val Asp Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp

1	5	10	15
Arg Val Thr	Ile Thr Cys Val	Leu Thr Gly Ala Asn Tyr	Gly Leu Ala
	20	25	30
Ser Thr Tyr	Trp Tyr Arg Lys	Asn Pro Gly Ser Ser	Asn Gln Glu Arg
	35	40	45
Ile Ser Ile	Ser Gly Arg Tyr	Ser Glu Ser Val	Asn Lys Arg Thr Met
	50	55	60
Ser Phe Thr	Leu Thr Ile Ser	Ser Leu Gln Pro	Glu Asp Ser Ala Thr
65	70	75	80
Tyr Tyr Cys	Arg Ala Tyr Pro	Trp Gly Ala Gly	Ala Pro Trp Leu Val
	85	90	95
Gln Trp Tyr	Asp Gly Ala Gly	Thr Lys Val Glu	Ile Lys Gly Gly Gly
	100	105	110
Gly Ser Gly	Gly Gly Gly Ser	Gly Gly Gly Gly	Ser Glu Pro Lys Ser
	115	120	125
Ser Asp Lys	Thr His Thr Cys	Pro Pro Cys Pro	Ala Pro Glu Leu Leu
	130	135	140
Gly Gly Pro	Cys Val Phe Leu	Phe Pro Pro Lys	Pro Lys Asp Thr Leu
145	150	155	160
Met Ile Ser	Arg Thr Pro Glu	Val Thr Cys Val	Val Val Asp Val Ser
	165	170	175
His Glu Asp	Pro Glu Val Lys	Phe Asn Trp Tyr	Val Asp Gly Val Glu
	180	185	190
Val His Asn	Ala Lys Thr Lys	Pro Arg Glu Glu	Gln Tyr Asn Ser Thr
	195	200	205
Tyr Arg Val	Val Ser Val Leu	Thr Val Leu His	Gln Asp Trp Leu Asn
	210	215	220

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
225 230 235 240

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
245 250 255

Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
260 265 270

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
275 280 285

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
290 295 300

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

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
325 330 335

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
340 345 350

Ser Pro Gly Lys
355

<210> 232
<211> 356
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 232

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

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

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

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

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

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

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

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser
115 120 125

Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
130 135 140

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

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
165 170 175

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
180 185 190

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
195 200 205

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
210 215 220

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
225 230 235 240

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

245

250

255

Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
 260 265 270

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 275 280 285

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 290 295 300

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

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 325 330 335

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Cys Leu
 340 345 350

Ser Pro Gly Lys
 355

<210> 233

<211> 354

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 233

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

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

50

55

60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser Asp
 115 120 125

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 130 135 140

Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 145 150 155 160

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 165 170 175

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 180 185 190

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
 195 200 205

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 210 215 220

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 225 230 235 240

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 245 250 255

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 260 265 270

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
275 280 285

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

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
305 310 315 320

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
325 330 335

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
340 345 350

Gly Lys

<210> 234
<211> 359
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 234

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1 5 10 15

Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

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

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

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

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

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

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

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
130 135 140

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

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
165 170 175

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

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
195 200 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
210 215 220

Pro Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
225 230 235 240

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp
245 250 255

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

Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp
275 280 285

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly

290

295

300

Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu
 305 310 315 320

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
 325 330 335

Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp Tyr Asp Gly Ala
 340 345 350

Gly Thr Val Leu Thr Val Asn
 355

<210> 235

<211> 354

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 235

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

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

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser

100

105

110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser Asp
 115 120 125

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 130 135 140

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 145 150 155 160

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 165 170 175

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 180 185 190

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
 195 200 205

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 210 215 220

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 225 230 235 240

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 245 250 255

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 260 265 270

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 275 280 285

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

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 305 310 315 320

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
325 330 335

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Cys Leu Ser Pro
340 345 350

Gly Lys

<210> 236
<211> 359
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 236

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu
115 120 125

Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
130 135 140

Glu Leu Leu Gly Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys
145 150 155 160

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
165 170 175

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
180 185 190

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
195 200 205

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
210 215 220

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
225 230 235 240

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
245 250 255

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
260 265 270

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

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
290 295 300

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
305 310 315 320

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
325 330 335

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

340

345

350

Leu Ser Leu Ser Pro Gly Lys
355

<210> 237

<211> 364

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 237

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1 5 10 15

Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

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

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

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

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

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

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

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
130 135 140

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

145		150		155		160									
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro
				165					170					175	
Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val
			180					185					190		
Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met
		195					200					205			
His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser
	210					215					220				
Pro	Gly	Lys	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly
225					230					235					240
Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Ala	Ser	Val	Asn
				245					250					255	
Gln	Thr	Pro	Arg	Thr	Ala	Thr	Lys	Glu	Thr	Gly	Glu	Ser	Leu	Thr	Ile
			260					265					270		
Asn	Cys	Val	Leu	Thr	Asp	Thr	Ser	Tyr	Gly	Leu	Tyr	Ser	Thr	Ser	Trp
		275					280					285			
Phe	Arg	Lys	Asn	Pro	Gly	Thr	Thr	Asp	Trp	Glu	Arg	Met	Ser	Ile	Gly
	290					295					300				
Gly	Arg	Tyr	Val	Glu	Ser	Val	Asn	Lys	Arg	Ala	Lys	Ser	Phe	Ser	Leu
305					310					315					320
Arg	Ile	Lys	Asp	Leu	Thr	Val	Ala	Asp	Ser	Ala	Thr	Tyr	Tyr	Cys	Lys
				325					330					335	
Ala	Gln	Ser	Gly	Met	Ala	Ile	Ser	Thr	Gly	Ser	Gly	His	Gly	Tyr	Asn
			340					345					350		
Trp	Tyr	Asp	Gly	Ala	Gly	Thr	Val	Leu	Thr	Val	Asn				
		355						360							

<210> 238
<211> 496
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 238

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro
130 135 140

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

Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys
165 170 175

Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr
180 185 190

Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys
195 200 205

Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser
210 215 220

Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp
225 230 235 240

Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly
245 250 255

Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser Asp Lys Thr
260 265 270

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Cys
275 280 285

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
290 295 300

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
305 310 315 320

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
325 330 335

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
340 345 350

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
355 360 365

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
370 375 380

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu

385 390 395 400
 Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys
 405 410 415
 Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 420 425 430
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
 435 440 445
 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
 450 455 460
 Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
 465 470 475 480
 Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 485 490 495

 <210> 239
 <211> 501
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 239
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 1 5 10 15

 Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 20 25 30

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

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

 His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr

65					70						75				80
Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly
			85						90					95	
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile
			100					105					110		
Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val
		115					120					125			
Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val	Ser
	130					135					140				
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu
145					150					155					160
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro
			165					170						175	
Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val
			180					185					190		
Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met
		195					200					205			
His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser
	210				215						220				
Pro	Gly	Lys	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly
225					230					235					240
Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Ala	Ser	Val	Asn
			245					250						255	
Gln	Thr	Pro	Arg	Thr	Ala	Thr	Lys	Glu	Thr	Gly	Glu	Ser	Leu	Thr	Ile
			260					265					270		
Asn	Cys	Val	Leu	Thr	Asp	Thr	Ser	Tyr	Gly	Leu	Tyr	Ser	Thr	Ser	Trp
		275					280					285			

Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly
290 295 300

Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu
305 310 315 320

Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys
325 330 335

Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn
340 345 350

Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly
355 360 365

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
370 375 380

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

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr
405 410 415

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
420 425 430

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
435 440 445

Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
450 455 460

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile
465 470 475 480

Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr
485 490 495

Val Leu Thr Val Asn

500

<210> 240
<211> 359
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 240

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Asp Ile Gly Ser Gly
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu
115 120 125

Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
130 135 140

Glu Leu Leu Gly Gly Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys
145 150 155 160

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val

165

170

175

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 180 185 190

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
 195 200 205

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 210 215 220

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 225 230 235 240

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 245 250 255

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
 260 265 270

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

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 290 295 300

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 305 310 315 320

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 325 330 335

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 340 345 350

Leu Ser Leu Ser Pro Gly Lys
 355

<210> 241

<211> 353

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 241

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser Asp
115 120 125

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
130 135 140

Pro Cys Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
145 150 155 160

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
165 170 175

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
180 185 190

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
195 200 205

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
210 215 220

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
225 230 235 240

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
245 250 255

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
260 265 270

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
275 280 285

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

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
305 310 315 320

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
325 330 335

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
340 345 350

Gly

<210> 242
<211> 353
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 242

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

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

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

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

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser Asp
115 120 125

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
130 135 140

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
145 150 155 160

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
165 170 175

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
180 185 190

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
195 200 205

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys

210

215

220

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 225 230 235 240

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 245 250 255

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 260 265 270

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 275 280 285

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

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 305 310 315 320

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 325 330 335

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Cys Leu Ser Pro
 340 345 350

Gly

<210> 243

<211> 376

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 243

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

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp

20					25					30					
Glu	Pro	Met	Asn	Asn	Ile	Thr	Thr	Ser	Leu	Gly	Gln	Thr	Ala	Glu	Leu
		35					40					45			
His	Cys	Lys	Val	Ser	Gly	Asn	Pro	Pro	Pro	Thr	Ile	Arg	Trp	Phe	Lys
	50					55					60				
Asn	Asp	Ala	Pro	Val	Val	Gln	Glu	Pro	Arg	Arg	Leu	Ser	Phe	Arg	Ser
65					70					75					80
Thr	Ile	Tyr	Gly	Ser	Arg	Leu	Arg	Ile	Arg	Asn	Leu	Asp	Thr	Thr	Asp
				85					90					95	
Thr	Gly	Tyr	Phe	Gln	Cys	Val	Ala	Thr	Asn	Gly	Lys	Glu	Val	Val	Ser
			100					105					110		
Ser	Thr	Gly	Val	Leu	Phe	Val	Lys	Phe	Gly	Pro	Pro	Pro	Thr	Ala	Ser
		115					120					125			
Pro	Gly	Tyr	Ser	Asp	Glu	Tyr	Glu	Glu	Asp	Gly	Phe	Cys	Gln	Pro	Tyr
	130					135					140				
Arg	Gly	Ile	Ala	Cys	Ala	Arg	Phe	Ile	Gly	Asn	Arg	Thr	Val	Tyr	Met
145					150					155					160
Glu	Ser	Leu	His	Met	Gln	Gly	Glu	Ile	Glu	Asn	Gln	Ile	Thr	Ala	Ala
				165					170					175	
Phe	Thr	Met	Ile	Gly	Thr	Ser	Ser	His	Leu	Ser	Asp	Lys	Cys	Ser	Gln
			180					185					190		
Phe	Ala	Ile	Pro	Ser	Leu	Cys	His	Tyr	Ala	Phe	Pro	Tyr	Cys	Asp	Glu
		195					200					205			
Thr	Ser	Ser	Val	Pro	Lys	Pro	Arg	Asp	Leu	Cys	Arg	Asp	Glu	Cys	Glu
	210					215					220				
Ile	Leu	Glu	Asn	Val	Leu	Cys	Gln	Thr	Glu	Tyr	Ile	Phe	Ala	Arg	Ser
225					230					235					240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr
275 280 285

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

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Thr Phe Thr Ala
305 310 315 320

Leu Arg Phe Pro Glu Leu Asn Gly Gly His Ser Tyr Cys Arg Asn Pro
325 330 335

Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe Thr Leu Asp Glu Asn Phe
340 345 350

Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys Asp Ser Lys Asp Ser Lys
355 360 365

Glu Lys Asn Lys Met Glu Phe Cys
370 375

<210> 244
<211> 616
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 244

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

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Thr Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Leu Ser Phe Arg Ser
65 70 75 80

Thr Ile Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Glu Val Val Ser
100 105 110

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

Pro Gly Tyr Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
210 215 220

Ile Leu Glu Asn Val Leu Cys Gln Thr Glu Tyr Ile Phe Ala Arg Ser
225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu

245

250

255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
 260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr
 275 280 285

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

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Thr Phe Thr Ala
 305 310 315 320

Leu Arg Phe Pro Glu Leu Asn Gly Gly His Ser Tyr Cys Arg Asn Pro
 325 330 335

Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe Thr Leu Asp Glu Asn Phe
 340 345 350

Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys Asp Ser Lys Asp Ser Lys
 355 360 365

Glu Lys Asn Lys Met Glu Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 370 375 380

Gly Gly Gly Gly Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 385 390 395 400

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 405 410 415

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 420 425 430

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 435 440 445

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 450 455 460

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
465 470 475 480

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
485 490 495

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
500 505 510

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
515 520 525

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
530 535 540

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
545 550 555 560

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
565 570 575

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
580 585 590

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
595 600 605

Ser Leu Ser Leu Ser Pro Gly Lys
610 615

<210> 245
<211> 363
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 245

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

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Thr Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Leu Ser Phe Arg Ser
65 70 75 80

Thr Ile Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Glu Val Val Ser
100 105 110

Ser Thr Gly Val Leu Phe Val Lys Phe Gly Gly Gly Gly Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Asp Lys Thr His Thr Cys Pro Pro
130 135 140

Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
145 150 155 160

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
165 170 175

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
180 185 190

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
195 200 205

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
210 215 220

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

225	230										235				240			
Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys			
				245					250					255				
Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu			
			260					265					270					
Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe			
		275					280					285						
Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu			
	290					295					300							
Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe			
305					310					315					320			
Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly			
				325					330					335				
Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr			
			340					345					350					
Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys								
		355					360											
<210>	246																	
<211>	377																	
<212>	PRT																	
<213>	Artificial Sequence																	
<220>																		
<223>	Artificial Sequence																	
<400>	246																	
Glu	Glu	Asp	Gly	Phe	Cys	Gln	Pro	Tyr	Arg	Gly	Ile	Ala	Cys	Ala	Arg			
1				5					10					15				
Phe	Ile	Gly	Asn	Arg	Thr	Val	Tyr	Met	Glu	Ser	Leu	His	Met	Gln	Gly			
			20				25						30					
Glu	Ile	Glu	Asn	Gln	Ile	Thr	Ala	Ala	Phe	Thr	Met	Ile	Gly	Thr	Ser			

35

40

45

Ser His Leu Ser Asp Lys Cys Ser Gln Phe Ala Ile Pro Ser Leu Cys
 50 55 60

His Tyr Ala Phe Pro Tyr Cys Asp Glu Thr Ser Ser Val Pro Lys Pro
 65 70 75 80

Arg Asp Leu Cys Arg Asp Glu Cys Glu Ile Leu Glu Asn Val Leu Cys
 85 90 95

Gln Thr Glu Tyr Ile Phe Ala Arg Ser Asn Pro Met Ile Leu Met Arg
 100 105 110

Leu Lys Leu Pro Asn Cys Glu Asp Leu Pro Gln Pro Glu Ser Pro Glu
 115 120 125

Ala Ala Asn Cys Ile Arg Ile Gly Gly Gly Gly Ser Gly Gly Gly Gly
 130 135 140

Ser Gly Gly Gly Gly Ser Asp Lys Thr His Thr Cys Pro Pro 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 Lys Phe Asn 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 Tyr 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 Ala 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 Asn Gly Gln Pro Glu Asn Asn
305 310 315 320

Tyr Lys Thr Thr Pro Pro Val 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 Val
340 345 350

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

Lys Ser Leu Ser Leu Ser Pro Gly Lys
370 375

<210> 247
<211> 322
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 247

Lys Cys Tyr Asn Ser Thr Gly Val Asp Tyr Arg Gly Thr Val Ser Val
1 5 10 15

Thr Lys Ser Gly Arg Gln Cys Gln Pro Trp Asn Ser Gln Tyr Pro His
20 25 30

Thr His Thr Phe Thr Ala Leu Arg Phe Pro Glu Leu Asn Gly Gly His
35 40 45

Ser Tyr Cys Arg Asn Pro Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe
50 55 60

Thr Leu Asp Glu Asn Phe Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys
65 70 75 80

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
85 90 95

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
100 105 110

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
115 120 125

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
130 135 140

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

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
165 170 175

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
180 185 190

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

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

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

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
245 250 255

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

260

265

270

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

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 290 295 300

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

Gly Lys

<210> 248
 <211> 512
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 248

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

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp
 20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
 35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Thr Ile Arg Trp Phe Lys
 50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Leu Ser Phe Arg Ser
 65 70 75 80

Thr Ile Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
 85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Glu Val Val Ser

100

105

110

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

Pro Gly Tyr Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
 130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
 145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
 165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
 180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
 195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
 210 215 220

Ile Leu Glu Asn Val Leu Cys Gln Thr Glu Tyr Ile Phe Ala Arg Ser
 225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
 245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Gly
 260 265 270

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Lys Thr
 275 280 285

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 290 295 300

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 305 310 315 320

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
325 330 335

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
340 345 350

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

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
370 375 380

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
385 390 395 400

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
405 410 415

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
420 425 430

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
435 440 445

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
450 455 460

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
465 470 475 480

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
485 490 495

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
500 505 510

<210> 249
<211> 469
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 249

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

Phe Ile Gly Asn Arg Thr Val Tyr Met Glu Ser Leu His Met Gln Gly
20 25 30

Glu Ile Glu Asn Gln Ile Thr Ala Ala Phe Thr Met Ile Gly Thr Ser
35 40 45

Ser His Leu Ser Asp Lys Cys Ser Gln Phe Ala Ile Pro Ser Leu Cys
50 55 60

His Tyr Ala Phe Pro Tyr Cys Asp Glu Thr Ser Ser Val Pro Lys Pro
65 70 75 80

Arg Asp Leu Cys Arg Asp Glu Cys Glu Ile Leu Glu Asn Val Leu Cys
85 90 95

Gln Thr Glu Tyr Ile Phe Ala Arg Ser Asn Pro Met Ile Leu Met Arg
100 105 110

Leu Lys Leu Pro Asn Cys Glu Asp Leu Pro Gln Pro Glu Ser Pro Glu
115 120 125

Ala Ala Asn Cys Ile Arg Ile Gly Ile Pro Met Ala Asp Pro Ile Asn
130 135 140

Lys Asn His Lys Cys Tyr Asn Ser Thr Gly Val Asp Tyr Arg Gly Thr
145 150 155 160

Val Ser Val Thr Lys Ser Gly Arg Gln Cys Gln Pro Trp Asn Ser Gln
165 170 175

Tyr Pro His Thr His Thr Phe Thr Ala Leu Arg Phe Pro Glu Leu Asn
180 185 190

Gly Gly His Ser Tyr Cys Arg Asn Pro Gly Asn Gln Lys Glu Ala Pro

195

200

205

Trp Cys Phe Thr Leu Asp Glu Asn Phe Lys Ser Asp Leu Cys Asp Ile
 210 215 220

Pro Ala Cys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
 225 230 235 240

Gly Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 245 250 255

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 260 265 270

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 275 280 285

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 290 295 300

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 305 310 315 320

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 325 330 335

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 340 345 350

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 355 360 365

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 370 375 380

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

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 405 410 415

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
420 425 430

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
435 440 445

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
450 455 460

Leu Ser Pro Gly Lys
465

<210> 250
<211> 611
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 250

Glu Val Glu Val Leu Asp Pro Asn Asp Pro Leu Gly Pro Leu Asp Gly
1 5 10 15

Gln Asp Gly Pro Ile Pro Thr Leu Lys Gly Tyr Phe Leu Asn Phe Leu
20 25 30

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

His Cys Lys Val Ala Gly Asn Pro Pro Pro Asn Val Arg Trp Leu Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Ile Ile Ile Arg Lys
65 70 75 80

Thr Glu Tyr Gly Ser Arg Leu Arg Ile Gln Asp Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Tyr Gln Cys Val Ala Thr Asn Gly Met Lys Thr Ile Thr
100 105 110

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

His Asn Phe Gln Asp Asp Tyr His Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Ile Tyr Val
145 150 155 160

Asp Ser Leu Gln Met Gln Gly Glu Ile Glu Asn Arg Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Thr His Leu Ser Asp Gln Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Phe Cys His Phe Val Phe Pro Leu Cys Asp Ala
195 200 205

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

Val Leu Glu Ser Asp Leu Cys Arg Gln Glu Tyr Thr Ile Ala Arg Ser
225 230 235 240

Asn Pro Leu Ile Leu Met Arg Leu Gln Leu Pro Lys Cys Glu Ala Leu
245 250 255

Pro Met Pro Glu Ser Pro Asp Ala Ala Asn Cys Met Arg Ile Gly Ile
260 265 270

Pro Ala Glu Arg Leu Gly Arg Tyr His Gln Cys Tyr Asn Gly Ser Gly
275 280 285

Met Asp Tyr Arg Gly Thr Ala Ser Thr Thr Lys Ser Gly His Gln Cys
290 295 300

Gln Pro Trp Ala Leu Gln His Pro His Ser His His Leu Ser Ser Thr
305 310 315 320

Asp Phe Pro Glu Leu Gly Gly Gly His Ala Tyr Cys Arg Asn Pro Gly

325

330

335

Gly Gln Met Glu Gly Pro Trp Cys Phe Thr Gln Asn Lys Asn Val Arg
 340 345 350

Met Glu Leu Cys Asp Val Pro Ser Cys Ser Pro Arg Asp Ser Ser Lys
 355 360 365

Met Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 370 375 380

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

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

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 420 425 430

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 435 440 445

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 450 455 460

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 465 470 475 480

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 485 490 495

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 500 505 510

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 515 520 525

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 530 535 540

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
545 550 555 560

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
565 570 575

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
580 585 590

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
595 600 605

Pro Gly Lys
610

<210> 251
<211> 616
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 251

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

Trp Asn Thr Ser Ser Glu Ile Asp Lys Gly Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Ser Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Ile Ser Phe Arg Ala
65 70 75 80

Thr Asn Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Lys Val Val Ser
100 105 110

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

Pro Gly Ser Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
210 215 220

Val Leu Glu Asn Val Leu Cys Gln Thr Glu Tyr Ile Phe Ala Arg Ser
225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr
275 280 285

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

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Ser Phe Thr Ala

305		310		315		320									
Leu	Arg	Phe	Pro	Glu	Leu	Asn	Gly	Gly	His	Ser	Tyr	Cys	Arg	Asn	Pro
				325					330					335	
Gly	Asn	Gln	Lys	Glu	Ala	Pro	Trp	Cys	Phe	Thr	Leu	Asp	Glu	Asn	Phe
			340					345					350		
Lys	Ser	Asp	Leu	Cys	Asp	Ile	Pro	Ala	Cys	Asp	Ser	Lys	Asp	Ser	Lys
		355					360					365			
Glu	Lys	Asn	Lys	Met	Glu	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser
	370					375					380				
Gly	Gly	Gly	Gly	Ser	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala
385					390					395					400
Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro
				405					410					415	
Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val
			420					425					430		
Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val
		435					440					445			
Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln
	450					455					460				
Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln
465					470					475					480
Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala
				485					490					495	
Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro
			500					505					510		
Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr
		515					520					525			

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
530 535 540

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
545 550 555 560

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
565 570 575

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
580 585 590

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
595 600 605

Ser Leu Ser Leu Ser Pro Gly Lys
610 615

<210> 252
<211> 615
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 252

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

Trp Asn Thr Ser Ser Glu Ile Asp Lys Asp Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Asn Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Ile Ser Phe Arg Ala
65 70 75 80

Thr Asn Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Ser Gly Lys Lys Val Val Ser
100 105 110

Thr Thr Gly Val Leu Phe Val Lys Phe Gly Pro Pro Pro Thr Ala Ser
115 120 125

Pro Gly Ser Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
210 215 220

Val Leu Glu Asn Val Leu Cys His Thr Glu Tyr Ile Phe Ala Arg Ser
225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr
275 280 285

Gly Val Asp Tyr Arg Gly Thr Val Ser Val Thr Lys Ser Gly Arg Gln

290

295

300

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Ser Phe Thr Ala
 305 310 315 320

Leu Arg Phe Pro Glu Leu Asn Gly Gly His Ser Tyr Cys Arg Asn Pro
 325 330 335

Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe Thr Leu Asp Glu Asn Phe
 340 345 350

Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys Asp Ser Lys Asp Ser Lys
 355 360 365

Glu Lys Asn Lys Met Glu Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 370 375 380

Gly Gly Gly Gly Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 385 390 395 400

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 405 410 415

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 420 425 430

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 435 440 445

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 450 455 460

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 465 470 475 480

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 485 490 495

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 500 505 510

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
515 520 525

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
530 535 540

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
545 550 555 560

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
565 570 575

Ser Lys Leu Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
580 585 590

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
595 600 605

Leu Ser Leu Ser Pro Gly Lys
610 615

<210> 253
<211> 382
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 253

Gln Glu Thr Glu Leu Ser Val Ser Ala Glu Leu Val Pro Thr Ser Ser
1 5 10 15

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Thr Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Leu Ser Phe Arg Ser
65 70 75 80

Thr Ile Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Glu Val Val Ser
100 105 110

Ser Thr Gly Val Leu Phe Val Lys Phe Gly Pro Pro Pro Thr Ala Ser
115 120 125

Pro Gly Tyr Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
210 215 220

Ile Leu Glu Asn Val Leu Cys Gln Thr Glu Tyr Ile Phe Ala Arg Ser
225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr

275

280

285

Gly Val Asp Tyr Arg Gly Thr Val Ser Val Thr Lys Ser Gly Arg Gln
 290 295 300

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Thr Phe Thr Ala
 305 310 315 320

Leu Arg Phe Pro Glu Leu Asn Gly Gly His Ser Tyr Cys Arg Asn Pro
 325 330 335

Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe Thr Leu Asp Glu Asn Phe
 340 345 350

Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys Asp Ser Lys Asp Ser Lys
 355 360 365

Glu Lys Asn Lys Met Glu His His His His His His His His
 370 375 380

<210> 254

<211> 380

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 254

Gln Glu Thr Glu Leu Ser Val Ser Ala Glu Leu Val Pro Thr Ser Ser
 1 5 10 15

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp
 20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
 35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Thr Ile Arg Trp Phe Lys
 50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Leu Ser Phe Arg Ser

65

70

75

80

Thr Ile Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Glu Val Val Ser
100 105 110

Ser Thr Gly Val Leu Phe Val Lys Phe Gly Pro Pro Pro Thr Ala Ser
115 120 125

Pro Gly Tyr Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
210 215 220

Ile Leu Glu Asn Val Leu Cys Gln Thr Glu Tyr Ile Phe Ala Arg Ser
225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr
275 280 285

Gly Val Asp Tyr Arg Gly Thr Val Ser Val Thr Lys Ser Gly Arg Gln
290 295 300

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Thr Phe Thr Ala
305 310 315 320

Leu Arg Phe Pro Glu Leu Asn Gly Gly His Ser Tyr Cys Arg Asn Pro
325 330 335

Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe Thr Leu Asp Glu Asn Phe
340 345 350

Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys Asp Ser Lys Asp Ser Lys
355 360 365

Glu Lys Asn Lys Met Glu His His His His His His
370 375 380

<210> 255
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 255

Gln Glu Thr Glu Leu Ser Val Ser Ala Glu Leu Val Pro Thr Ser Ser
1 5 10 15

Trp Asn Ile Ser Ser Glu Leu Asn Lys Asp Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Thr Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Leu Ser Phe Arg Ser
65 70 75 80

Thr Ile Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Glu Val Val Ser
100 105 110

Ser Thr Gly Val Leu Phe Val Lys Phe His His His His His
115 120 125

<210> 256
<211> 382
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 256

Gln Glu Thr Glu Leu Ser Val Ser Ala Glu Leu Val Pro Thr Ser Ser
1 5 10 15

Trp Asn Thr Ser Ser Glu Ile Asp Lys Gly Ser Tyr Leu Thr Leu Asp
20 25 30

Glu Pro Met Asn Asn Ile Thr Thr Ser Leu Gly Gln Thr Ala Glu Leu
35 40 45

His Cys Lys Val Ser Gly Asn Pro Pro Pro Ser Ile Arg Trp Phe Lys
50 55 60

Asn Asp Ala Pro Val Val Gln Glu Pro Arg Arg Ile Ser Phe Arg Ala
65 70 75 80

Thr Asn Tyr Gly Ser Arg Leu Arg Ile Arg Asn Leu Asp Thr Thr Asp
85 90 95

Thr Gly Tyr Phe Gln Cys Val Ala Thr Asn Gly Lys Lys Val Val Ser
100 105 110

Thr Thr Gly Val Leu Phe Val Lys Phe Gly Pro Pro Pro Thr Ala Ser
115 120 125

Pro Gly Ser Ser Asp Glu Tyr Glu Glu Asp Gly Phe Cys Gln Pro Tyr
130 135 140

Arg Gly Ile Ala Cys Ala Arg Phe Ile Gly Asn Arg Thr Val Tyr Met
145 150 155 160

Glu Ser Leu His Met Gln Gly Glu Ile Glu Asn Gln Ile Thr Ala Ala
165 170 175

Phe Thr Met Ile Gly Thr Ser Ser His Leu Ser Asp Lys Cys Ser Gln
180 185 190

Phe Ala Ile Pro Ser Leu Cys His Tyr Ala Phe Pro Tyr Cys Asp Glu
195 200 205

Thr Ser Ser Val Pro Lys Pro Arg Asp Leu Cys Arg Asp Glu Cys Glu
210 215 220

Val Leu Glu Asn Val Leu Cys Gln Thr Glu Tyr Ile Phe Ala Arg Ser
225 230 235 240

Asn Pro Met Ile Leu Met Arg Leu Lys Leu Pro Asn Cys Glu Asp Leu
245 250 255

Pro Gln Pro Glu Ser Pro Glu Ala Ala Asn Cys Ile Arg Ile Gly Ile
260 265 270

Pro Met Ala Asp Pro Ile Asn Lys Asn His Lys Cys Tyr Asn Ser Thr
275 280 285

Gly Val Asp Tyr Arg Gly Thr Val Ser Val Thr Lys Ser Gly Arg Gln
290 295 300

Cys Gln Pro Trp Asn Ser Gln Tyr Pro His Thr His Ser Phe Thr Ala
305 310 315 320

Leu Arg Phe Pro Glu Leu Asn Gly Gly His Ser Tyr Cys Arg Asn Pro
325 330 335

Gly Asn Gln Lys Glu Ala Pro Trp Cys Phe Thr Leu Asp Glu Asn Phe

340

345

350

Lys Ser Asp Leu Cys Asp Ile Pro Ala Cys Asp Ser Lys Asp Ser Lys
 355 360 365

Glu Lys Asn Lys Met Glu His His His His His His His His
 370 375 380

<210> 257

<211> 361

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 257

Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 1 5 10 15

Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala
 20 25 30

Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg
 35 40 45

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
 50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 65 70 75 80

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
 85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly
 100 105 110

Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro
 115 120 125

Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr

130

135

140

Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu
 145 150 155 160

Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln
 165 170 175

Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr
 180 185 190

Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr
 195 200 205

Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly
 210 215 220

Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
 225 230 235 240

Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro
 245 250 255

Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg
 260 265 270

Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly
 275 280 285

Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly
 290 295 300

Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu
 305 310 315 320

Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln
 325 330 335

Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu
 340 345 350

Leu Lys Ser His His His His His His
355 360

<210> 258
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 258

Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Val Thr Gly Ala Asn Tyr Gly Leu Ala
20 25 30

Ala Thr Tyr Trp Tyr Arg Lys Asn Pro Gly Ser Ser Asn Gln Glu Arg
35 40 45

Ile Ser Ile Ser Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Thr Met
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly Ala Gly Ala Pro Trp Leu Val
85 90 95

Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly
100 105 110

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Lys Leu
115 120 125

Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met
130 135 140

Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp
145 150 155 160

Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn
165 170 175

Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala
180 185 190

Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser
195 200 205

Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr
210 215 220

Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr
225 230 235 240

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
245 250 255

Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser
260 265 270

Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser
275 280 285

Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp
290 295 300

Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser
305 310 315 320

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
325 330 335

Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro
340 345 350

Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His
355 360 365

His His His

370

<210> 259
<211> 359
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 259

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
100 105 110

Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
115 120 125

Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr
130 135 140

Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
145 150 155 160

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe

165

170

175

Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr
 180 185 190

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 195 200 205

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
 210 215 220

Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 225 230 235 240

Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile
 245 250 255

Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser
 260 265 270

Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser
 275 280 285

Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro
 290 295 300

Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile
 305 310 315 320

Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp
 325 330 335

Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 340 345 350

Ser His His His His His His
 355

<210> 260

<211> 369

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 260

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln
115 120 125

Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys
130 135 140

Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys
145 150 155 160

Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser
165 170 175

Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu
180 185 190

Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu
195 200 205

Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp
210 215 220

His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser
225 230 235 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
245 250 255

Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
260 265 270

Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met
275 280 285

Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
290 295 300

Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser
305 310 315 320

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
325 330 335

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr
340 345 350

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His His His
355 360 365

His

<210> 261
<211> 491
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 261

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala

195

200

205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
 210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly
 225 230 235 240

Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala
 245 250 255

Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr
 260 265 270

Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly
 275 280 285

Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr
 290 295 300

Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser
 305 310 315 320

Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala
 325 330 335

Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr
 340 345 350

Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser
 355 360 365

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln
 370 375 380

Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr
 385 390 395 400

Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys
 405 410 415

Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala
420 425 430

Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr
435 440 445

Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr
450 455 460

Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys
465 470 475 480

Leu Glu Leu Lys Ser His His His His His His
485 490

<210> 262
<211> 501
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 262

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys
130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
180 185 190

Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp
210 215 220

Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly
225 230 235 240

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile
245 250 255

Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val
260 265 270

Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met
275 280 285

His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr
290 295 300

Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp

305						310						315						320
Lys	Ala	Thr	Leu	Thr	Thr	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr	Met	Gln			
			325						330			335						
Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	Ala	Arg			
			340						345			350						
Tyr	Tyr	Asp	Asp	His	Tyr	Cys	Leu	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr			
			355						360			365						
Leu	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly			
			370						375			380						
Gly	Gly	Gly	Ser	Asp	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ala	Ile	Met	Ser			
			385						390			395			400			
Ala	Ser	Pro	Gly	Glu	Lys	Val	Thr	Met	Thr	Cys	Arg	Ala	Ser	Ser	Ser			
			405						410			415						
Val	Ser	Tyr	Met	Asn	Trp	Tyr	Gln	Gln	Lys	Ser	Gly	Thr	Ser	Pro	Lys			
			420						425			430						
Arg	Trp	Ile	Tyr	Asp	Thr	Ser	Lys	Val	Ala	Ser	Gly	Val	Pro	Tyr	Arg			
			435						440			445						
Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Ser	Tyr	Ser	Leu	Thr	Ile	Ser	Ser			
			450						455			460						
Met	Glu	Ala	Glu	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Ser	Ser			
			465						470			475			480			
Asn	Pro	Leu	Thr	Phe	Gly	Ala	Gly	Thr	Lys	Leu	Glu	Leu	Lys	Ser	His			
			485						490			495						
His	His	His	His	His														
			500															
<210>	263																	
<211>	359																	
<212>	PRT																	

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 263

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
100 105 110

Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
115 120 125

Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr
130 135 140

Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
145 150 155 160

Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe
165 170 175

Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr
180 185 190

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
195 200 205

Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
210 215 220

Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
225 230 235 240

Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile
245 250 255

Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser
260 265 270

Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser
275 280 285

Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro
290 295 300

Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile
305 310 315 320

Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp
325 330 335

Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
340 345 350

Ser His His His His His
355

<210> 264
<211> 369
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 264

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser Thr Arg Ser Tyr Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln
115 120 125

Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys
130 135 140

Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys
145 150 155 160

Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser
165 170 175

Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu
180 185 190

Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu
195 200 205

Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp

210

215

220

His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser
 225 230 235 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 245 250 255

Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
 260 265 270

Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met
 275 280 285

Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
 290 295 300

Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser
 305 310 315 320

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
 325 330 335

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr
 340 345 350

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His His His
 355 360 365

His

<210> 265

<211> 480

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 265

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu

1	5	10	15
Ser	Leu	Thr	Ile
	20		
Asn	Cys	Val	Leu
		25	
Thr	Asp	Thr	Ser
			Tyr
Gly	Leu	Tyr	
	30		
Ser	Thr	Ser	Trp
	35		
Phe	Arg	Lys	Asn
		40	
Pro	Gly	Thr	Thr
			Asp
Trp	Glu	Arg	
			45
Met	Ser	Ile	Gly
	50		
Gly	Gly	Arg	Tyr
		55	
Val	Glu	Ser	Val
			Asn
Lys	Gly	Ala	Lys
			60
Ser	Phe	Ser	Leu
	65		
Arg	Ile	Lys	Asp
	70		
Leu	Thr	Val	Ala
		75	
Asp	Ser	Ala	Thr
			80
Tyr	Tyr	Cys	Lys
			85
Ala	Arg	Glu	Ala
			Arg
His	Pro	Trp	Leu
			Arg
Gln	Trp		
			95
Tyr	Asp	Gly	Ala
			100
Gly	Thr	Val	Leu
			105
Thr	Val	Asn	Pro
			Gly
Val	Gln	Pro	
			110
Ser	Pro	Gly	Gly
			115
Gly	Gly	Ser	Ala
			120
Ser	Val	Asn	Gln
			125
Thr	Pro	Arg	Thr
Ala	Thr	Lys	Glu
			130
Thr	Gly	Glu	Ser
			135
Leu	Thr	Ile	Asn
			140
Cys	Val	Val	Thr
Gly	Ala	Asn	Tyr
			145
Gly	Leu	Ala	Ala
			150
Thr	Tyr	Trp	Tyr
			155
Arg	Lys	Asn	Pro
			160
Gly	Ser	Ser	Asn
			165
Glu	Arg	Ile	Ser
			170
Ser	Gly	Arg	Tyr
			175
Val	Glu		
Ser	Val	Asn	Lys
			180
Arg	Thr	Met	Ser
			185
Phe	Ser	Leu	Arg
			Ile
Lys	Asp	Leu	
			190
Thr	Val	Ala	Asp
			195
Ser	Ala	Thr	Tyr
			200
Tyr	Tyr	Cys	Lys
			Ala
Tyr	Pro	Trp	Gly
			205
Ala	Gly	Ala	Pro
			210
Trp	Leu	Val	Gln
			215
Trp	Tyr	Asp	Gly
			220
Ala	Gly	Thr	Val

Leu Thr Val Asn Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser
225 230 235 240

Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys
245 250 255

Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln
260 265 270

Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg
275 280 285

Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr
290 295 300

Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr
305 310 315 320

Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His
325 330 335

Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
340 345 350

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
355 360 365

Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu
370 375 380

Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn
385 390 395 400

Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp
405 410 415

Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly
420 425 430

Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp

435

440

445

Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe
 450 455 460

Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His His His His
 465 470 475 480

<210> 266

<211> 490

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 266

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
 20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Pro Gly Val Gln Pro
 100 105 110

Ser Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
 115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val Thr

130

135

140

Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn Pro
 145 150 155 160

Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val Glu
 165 170 175

Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp Leu
 180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp Gly
 195 200 205

Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr Val
 210 215 220

Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
 225 230 235 240

Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg
 245 250 255

Pro Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Thr Phe
 260 265 270

Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu
 275 280 285

Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn
 290 295 300

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser
 305 310 315 320

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
 325 330 335

Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp
 340 345 350

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
355 360 365

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser
370 375 380

Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
385 390 395 400

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser
405 410 415

Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
420 425 430

Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser
435 440 445

Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
450 455 460

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
465 470 475 480

Glu Leu Lys Ser His His His His His His
485 490

<210> 267
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 267

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Pro Gly Val Gln Pro
100 105 110

Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser Asp Ile Lys Leu
225 230 235 240

Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met

245

250

255

Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp
 260 265 270

Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn
 275 280 285

Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala
 290 295 300

Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser
 305 310 315 320

Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr
 325 330 335

Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr
 340 345 350

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
 355 360 365

Gly Ser Asp Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser
 370 375 380

Pro Gly Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser
 385 390 395 400

Tyr Met Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp
 405 410 415

Ile Tyr Asp Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser
 420 425 430

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu
 435 440 445

Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro
 450 455 460

Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His
465 470 475 480

His His His

<210> 268
<211> 493
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 268

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
35 40 45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Pro Gly Val Gln Pro
100 105 110

Ala Pro Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr
115 120 125

Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr
130 135 140

Asp Thr Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro
145 150 155 160

Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu
165 170 175

Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu
180 185 190

Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met
195 200 205

Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala
210 215 220

Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly
225 230 235 240

Ser Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser Gly Ala Glu
245 250 255

Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys Thr Ser Gly
260 265 270

Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly
275 280 285

Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr
290 295 300

Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys
305 310 315 320

Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp
325 330 335

Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu
340 345 350

Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly

355

360

365

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu
 370 375 380

Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr
 385 390 395 400

Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln
 405 410 415

Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys
 420 425 430

Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr
 435 440 445

Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr
 450 455 460

Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly
 465 470 475 480

Thr Lys Leu Glu Leu Lys Ser His His His His His His
 485 490

<210> 269

<211> 496

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 269

Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 1 5 10 15

Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
 20 25 30

Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg

35

40

45

Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 65 70 75 80

Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
 100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
 130 135 140

Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser
 145 150 155 160

Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr
 165 170 175

Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn
 180 185 190

Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala
 195 200 205

Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile Ser
 210 215 220

Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val
 225 230 235 240

Leu Thr Val Asn Gly Gly Gly Gly Ser Asp Ile Lys Leu Gln Gln Ser
 245 250 255

Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys
260 265 270

Thr Ser Gly Tyr Thr Phe Thr Arg Tyr Thr Met His Trp Val Lys Gln
275 280 285

Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg
290 295 300

Gly Tyr Thr Asn Tyr Asn Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr
305 310 315 320

Thr Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr
325 330 335

Ser Glu Asp Ser Ala Val Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His
340 345 350

Tyr Cys Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
355 360 365

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
370 375 380

Ile Gln Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu
385 390 395 400

Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Ser Tyr Met Asn
405 410 415

Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp
420 425 430

Thr Ser Lys Val Ala Ser Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly
435 440 445

Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp
450 455 460

Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe

465 470 475 480
 Gly Ala Gly Thr Lys Leu Glu Leu Lys Ser His His His His His His
 485 490 495

 <210> 270
 <211> 506
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 270

 Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr Lys Glu Thr Gly Glu
 1 5 10 15

 Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr
 20 25 30

 Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg
 35 40 45

 Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Gly Ala Lys
 50 55 60

 Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr
 65 70 75 80

 Tyr Tyr Cys Lys Ala Arg Glu Ala Arg His Pro Trp Leu Arg Gln Trp
 85 90 95

 Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gly Gly Gly Gly Ser
 100 105 110

 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125

 Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg Thr Ala Thr Lys
 130 135 140

 Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr Ser

145			150			155			160						
Tyr	Gly	Leu	Tyr	Ser 165	Thr	Ser	Trp	Phe	Arg 170	Lys	Asn	Pro	Gly	Thr 175	Thr
Asp	Trp	Glu	Arg 180	Met	Ser	Ile	Gly	Gly 185	Arg	Tyr	Val	Glu	Ser 190	Val	Asn
Lys	Arg	Ala 195	Lys	Ser	Phe	Ser	Leu 200	Arg	Ile	Lys	Asp	Leu 205	Thr	Val	Ala
Asp	Ser 210	Ala	Thr	Tyr	Tyr	Cys 215	Lys	Ala	Gln	Ser	Gly 220	Met	Ala	Ile	Ser
Thr 225	Gly	Ser	Gly	His	Gly 230	Tyr	Asn	Trp	Tyr	Asp 235	Gly	Ala	Gly	Thr	Val 240
Leu	Thr	Val	Asn	Gly 245	Gly	Gly	Gly	Ser	Gly 250	Gly	Gly	Gly	Ser	Gly 255	Gly
Gly	Gly	Ser	Asp 260	Ile	Lys	Leu	Gln	Gln 265	Ser	Gly	Ala	Glu	Leu 270	Ala	Arg
Pro	Gly	Ala 275	Ser	Val	Lys	Met	Ser 280	Cys	Lys	Thr	Ser	Gly 285	Tyr	Thr	Phe
Thr	Arg 290	Tyr	Thr	Met	His	Trp 295	Val	Lys	Gln	Arg	Pro 300	Gly	Gln	Gly	Leu
Glu 305	Trp	Ile	Gly	Tyr	Ile 310	Asn	Pro	Ser	Arg	Gly 315	Tyr	Thr	Asn	Tyr	Asn 320
Gln	Lys	Phe	Lys	Asp 325	Lys	Ala	Thr	Leu	Thr 330	Thr	Asp	Lys	Ser	Ser 335	Ser
Thr	Ala	Tyr	Met 340	Gln	Leu	Ser	Ser	Leu 345	Thr	Ser	Glu	Asp	Ser 350	Ala	Val
Tyr	Tyr	Cys 355	Ala	Arg	Tyr	Tyr	Asp 360	Asp	His	Tyr	Cys	Leu 365	Asp	Tyr	Trp

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
370 375 380

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Leu Thr Gln Ser
385 390 395 400

Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
405 410 415

Arg Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser
420 425 430

Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Val Ala Ser
435 440 445

Gly Val Pro Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser
450 455 460

Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
465 470 475 480

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
485 490 495

Glu Leu Lys Ser His His His His His His
500 505