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<151> 2017-12-22
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Ser Leu Thr Ile Asn Cys Val Leu Thr
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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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Tyr Tyr Cys Arg Ala
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Ser Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala 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 Glu Tyr Glu
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Arg Ser Thr Ile Tyr Gly Ser Arg Leu Arg Ile Asn Leu Asp Thr Thr
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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
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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 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
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

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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
85 90 95

His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Lys Val Glu Ile Lys
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Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
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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> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 83

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

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

<210> 84
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 84

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Ala Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

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

<210> 85
<211> 127
<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 85

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

<210> 86

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 86

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Ser Tyr

20

25

30

Val Met Gly Trp Phe Arg Gln Ala Thr Gly Lys Glu Arg Glu Phe Val
 35 40 45

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

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

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

Ala Ala Ser Tyr Asn Val Tyr Tyr Asn Asn Tyr Tyr Tyr Pro Ile Ser
 100 105 110

Arg Asp Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
 115 120 125

Ser

<210> 87

<211> 232

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 87

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> 88

<211> 232

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 88

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 Cys 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> 89
<211> 232
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 89

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 Cys Leu Ser Pro Gly Lys
225 230

<210> 90
<211> 147
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 90

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Ala Ala Ala His
115 120 125

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
130 135 140

Glu Asp Leu
145

<210> 91
<211> 151
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 91

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

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

Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe
35 40 45

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

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

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

Cys Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp
100 105 110

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

Ala Ala Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
130 135 140

Leu Ile Ser Glu Glu Asp Leu
145 150

<210> 92
<211> 249
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 92

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
245

<210> 93
<211> 233
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 93

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

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

<220>
<223> Artificial Sequence

<400> 94

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> 95

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 95

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> 96

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 96

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

<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 97

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 80

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
145 150 155 160

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> 98

<211> 105

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 98

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> 99
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 99

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> 100
 <211> 130
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 100

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> 101
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 101

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> 102
<211> 132
<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 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 Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser
115 120 125

Glu Glu Asp Leu
130

<210> 103
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 103

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> 104
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 104

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> 105
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 105

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> 106
<211> 248
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 106

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
245

<210> 107
<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 107

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> 108
<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 108

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> 109

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

<220>
<223> Artificial Sequence

<400> 109

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 Cys Leu Ser Pro Gly Lys
 245

<210> 110
 <211> 252
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 110

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> 111

<211> 371

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 111

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

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser Tyr

20

25

30

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser
 130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 145 150 155 160

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

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 195 200 205

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

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
245 250 255

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

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys
370

<210> 112
<211> 382
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 112

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 Cys 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 Gly Gly Gly Ser Gly Gly Gly
225 230 235 240

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly

245

250

255

Ser Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala Gly
 260 265 270

Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser
 275 280 285

Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe
 290 295 300

Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp Ser
 305 310 315 320

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val
 325 330 335

Asp Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr
 340 345 350

Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr
 355 360 365

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
 370 375 380

<210> 113

<211> 506

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 113

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

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Val Gln
370 375 380

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

Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly
405 410 415

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile
420 425 430

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Asp Leu Gln Met
450 455 460

Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala

465 470 475 480
 Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly
 485 490 495
 Gln Gly Thr Gln Val Thr Val Ser Ser Gly
 500 505

 <210> 114
 <211> 504
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 114
 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 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
355 360 365

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

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

Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe
405 410 415

Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp
420 425 430

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

Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Asp Leu Gln Met Asn Ser
450 455 460

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly
465 470 475 480

Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly
485 490 495

Thr Gln Val Thr Val Ser Ser Gly
500

<210> 115
<211> 646
<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 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		
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		
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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
500 505 510

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Val Gln Leu Val Glu Ser
515 520 525

Gly Gly Gly Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala
530 535 540

Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln
545 550 555 560

Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly
565 570 575

Asp Ser Thr Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
580 585 590

Arg Asp Asn Ala Lys Asn Thr Val Asp Leu Gln Met Asn Ser Leu Lys
595 600 605

Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr
610 615 620

Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
625 630 635 640

Val Thr Val Ser Ser Gly
645

<211> 281
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 116

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 Val Gln Leu Val Glu Ser Gly Gly Gly
130 135 140

Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly
145 150 155 160

Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly
165 170 175

Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr

180

185

190

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

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

Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly
 225 230 235 240

Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
 245 250 255

Ser Ser Ala Ala Ala His His His His His His Gly Ala Glu Phe Glu
 260 265 270

Gln Lys Leu Ile Ser Glu Glu Asp Leu
 275 280

<210> 117
 <211> 281
 <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 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 Val Gln Leu Val Glu Ser Gly Gly Gly
130 135 140

Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly
145 150 155 160

Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly
165 170 175

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

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

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

Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly
225 230 235 240

Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
245 250 255

Ser Ser Ala Cys Ala His His His His His His Gly Ala Glu Phe Glu
260 265 270

Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280

<210> 118
<211> 283
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 118

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser 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 Ser 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> 119
<211> 283
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 119

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser 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 Gly Ala Glu
260 265 270

Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu

275

280

<210> 120
 <211> 284
 <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 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 Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 130 135 140

Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 145 150 155 160

Arg Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly

165

170

175

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

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

Ala Lys Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp
 210 215 220

Thr Ala Val Tyr Tyr Cys Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn
 225 230 235 240

Tyr Asn Phe Lys Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
 245 250 255

Val Thr Val Ser Ser Ala Ala Ala His His His His His Gly Ala
 260 265 270

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 275 280

<210> 121
 <211> 286
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 121

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

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

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

Val Ala Ile Asn Trp Ser Ser Gly Ser Thr Tyr Tyr Ala Asp Ser Val

50

55

60

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg
145 150 155 160

Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val
165 170 175

Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn
180 185 190

Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val
195 200 205

Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp
210 215 220

Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp
225 230 235 240

Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr
245 250 255

Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His His His His His
260 265 270

Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280 285

<210> 122
<211> 284
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 122

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 Val Gln Leu Val Glu Ser
130 135 140

Gly Gly Gly Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala
145 150 155 160

Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln
165 170 175

Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly
180 185 190

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

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

Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr
225 230 235 240

Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
245 250 255

Val Thr Val Ser Ser Ala Ala Ala His His His His His His Gly Ala
260 265 270

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280

<210> 123
<211> 284
<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

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 Val Gln Leu Val Glu Ser
130 135 140

Gly Gly Gly Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala
145 150 155 160

Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln
165 170 175

Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly
180 185 190

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

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

Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr
225 230 235 240

Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
245 250 255

Val Thr Val Ser Ser Ala Cys Ala His His His His His His Gly Ala

260

265

270

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 275 280

<210> 124
 <211> 286
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 124

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 130 135 140

Gly Gly Gly Gly Ser 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	Leu	Thr	Asp	Thr
				165					170					175	
Ser	Tyr	Gly	Leu	Tyr	Ser	Thr	Ser	Trp	Phe	Arg	Lys	Asn	Pro	Gly	Thr
			180					185					190		
Thr	Asp	Trp	Glu	Arg	Met	Ser	Ile	Gly	Gly	Arg	Tyr	Val	Glu	Ser	Val
		195					200					205			
Asn	Lys	Arg	Ala	Lys	Ser	Phe	Ser	Leu	Arg	Ile	Lys	Asp	Leu	Thr	Val
	210					215					220				
Ala	Asp	Ser	Ala	Thr	Tyr	Tyr	Cys	Lys	Ala	Gln	Ser	Gly	Met	Ala	Ile
225					230					235					240
Ser	Thr	Gly	Ser	Gly	His	Gly	Tyr	Asn	Trp	Tyr	Asp	Gly	Ala	Gly	Thr
				245					250					255	
Val	Leu	Thr	Val	Asn	Gln	Ala	Ser	Gly	Ala	His	His	His	His	His	His
			260					265					270		
Gly	Ala	Glu	Phe	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu		
		275					280					285			

<210> 125
 <211> 286
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 125

Ala	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Ser	Val	Gln	Ala	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Thr	Cys	Ala	Ala	Ser	Gly	Arg	Thr	Ser	Arg	Ser	Tyr
			20					25					30		
Gly	Met	Gly	Trp	Phe	Arg	Gln	Ala	Pro	Gly	Lys	Glu	Arg	Glu	Phe	Val

35

40

45

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 130 135 140

Gly Gly Gly Gly Ser 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 Leu Thr Asp Thr
 165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
 180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
 195 200 205

Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
 210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile
 225 230 235 240

Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr
 245 250 255

Val Leu Thr Val Asn Gln Ala Cys Gly Ala His His His His His His
260 265 270

Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280 285

<210> 126
<211> 287
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 126

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 Glu Val Gln Leu Val Glu Ser
130 135 140

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala
145 150 155 160

Ala Ser Gly Arg Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln
165 170 175

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

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

Arg Asp Asn Ala Lys Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys
210 215 220

Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Tyr Gln Ile Asn
225 230 235 240

Ser Gly Asn Tyr Asn Phe Lys Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln
245 250 255

Gly Thr Gln Val Thr Val Ser Ser Ala Ala Ala His His His His His
260 265 270

His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280 285

<210> 127
<211> 289
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 127

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg
145 150 155 160

Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu
165 170 175

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

Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val
195 200 205

Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp
210 215 220

Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly
225 230 235 240

Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly

245

250

255

Ala Gly Thr Val Leu Thr Val Asn Gln Ala Ser Gly Ala His His His
 260 265 270

His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp
 275 280 285

Leu

<210> 128

<211> 421

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 128

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 Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala
 275 280 285

Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg
 290 295 300

Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
 305 310 315 320

Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp
 325 330 335

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
340 345 350

Val Asp Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr
355 360 365

Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu
370 375 380

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Ala Ala
385 390 395 400

Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile
405 410 415

Ser Glu Glu Asp Leu
420

<210> 129
<211> 421
<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

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 Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala
275 280 285

Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg

290

295

300

Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
 305 310 315 320

Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp
 325 330 335

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
 340 345 350

Val Asp Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr
 355 360 365

Tyr Cys Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu
 370 375 380

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Ala Cys
 385 390 395 400

Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile
 405 410 415

Ser Glu Glu Asp Leu
 420

<210> 130
 <211> 423
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 130

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

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

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val

35

40

45

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 130 135 140

Gly Gly Gly Gly Ser 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 Leu Thr Asp Thr
 165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
 180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
 195 200 205

Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
 210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile
 225 230 235 240

Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr
 245 250 255

Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
260 265 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser
275 280 285

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

Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr
305 310 315 320

Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser
325 330 335

Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe
340 345 350

Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr
355 360 365

Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly
370 375 380

Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala
385 390 395 400

Ser Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
405 410 415

Leu Ile Ser Glu Glu Asp Leu
420

<210> 131
<211> 423
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 131

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser 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 Leu Thr Asp Thr
165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val

210

215

220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile
 225 230 235 240

Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr
 245 250 255

Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 260 265 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser
 275 280 285

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

Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr
 305 310 315 320

Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser
 325 330 335

Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe
 340 345 350

Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr
 355 360 365

Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly
 370 375 380

Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn Gln Ala
 385 390 395 400

Cys Gly Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
 405 410 415

Leu Ile Ser Glu Glu Asp Leu
 420

<210> 132
<211> 279
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 132

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 Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val
130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
145 150 155 160

Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
165 170 175

Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr
180 185 190

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

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

Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu
225 230 235 240

Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
245 250 255

Ala Ala Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
260 265 270

Leu Ile Ser Glu Glu Asp Leu
275

<210> 133
<211> 279
<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 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 Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val
130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
145 150 155 160

Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
165 170 175

Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr
180 185 190

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

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

Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu
225 230 235 240

Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
245 250 255

Ala Cys Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
260 265 270

Leu Ile Ser Glu Glu Asp Leu

<210> 134
 <211> 281
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 134

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 130 135 140

Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr
 145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr

165

170

175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
 180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
 195 200 205

Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
 210 215 220

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

Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
 245 250 255

Gln Ala Ser Gly Ala His His His His His Gly Ala Glu Phe Glu
 260 265 270

Gln Lys Leu Ile Ser Glu Glu Asp Leu
 275 280

<210> 135
 <211> 281
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 135

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

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

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

Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp Ser Val

50

55

60

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr
145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr
165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
210 215 220

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

Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
245 250 255

Gln Ala Cys Gly Ala His His His His His His Gly Ala Glu Phe Glu
260 265 270

Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280

<210> 136
<211> 279
<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 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 Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val
130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
145 150 155 160

Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
165 170 175

Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr
180 185 190

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

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

Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu
225 230 235 240

Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
245 250 255

Ala Cys Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys
260 265 270

Leu Ile Ser Glu Glu Asp Leu
275

<210> 137
<211> 281
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 137

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr
145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr
165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser
225 230 235 240

Thr Arg Ser Tyr Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
245 250 255

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

260

265

270

Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280

<210> 138

<211> 282

<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 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 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr

145		150		155		160									
Phe	Ser	Ser	Tyr	Ala	Met	Gly	Trp	Phe	Arg	Gln	Ala	Pro	Gly	Lys	Glu
				165					170					175	
Arg	Glu	Phe	Val	Val	Ala	Ile	Asn	Trp	Ser	Ser	Gly	Ser	Thr	Tyr	Tyr
			180					185					190		
Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys
		195					200					205			
Asn	Thr	Met	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala
	210					215					220				
Val	Tyr	Tyr	Cys	Ala	Ala	Gly	Tyr	Gln	Ile	Asn	Ser	Gly	Asn	Tyr	Asn
225					230					235					240
Phe	Lys	Asp	Tyr	Glu	Tyr	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Gln	Val	Thr
				245					250					255	
Val	Ser	Ser	Ala	Cys	Ala	His	His	His	His	His	His	Gly	Ala	Glu	Phe
			260					265					270		
Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp	Leu						
		275					280								
<210>	139														
<211>	284														
<212>	PRT														
<213>	Artificial Sequence														
<220>															
<223>	Artificial Sequence														
<400>	139														
Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Ala	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Arg	Thr	Phe	Ser	Ser	Tyr
			20					25					30		
Ala	Met	Gly	Trp	Phe	Arg	Gln	Ala	Pro	Gly	Lys	Glu	Arg	Glu	Phe	Val

35

40

45

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
 100 105 110

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
 130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg
 145 150 155 160

Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu
 165 170 175

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

Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val
 195 200 205

Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp
 210 215 220

Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Leu
 225 230 235 240

Ala Ile Ser Thr Arg Ser Tyr Trp Tyr Asp Gly Ala Gly Thr Val Leu
 245 250 255

Thr Val Asn Gln Ala Cys Gly Ala His His His His His His Gly Ala
260 265 270

Glu Phe Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
275 280

<210> 140
<211> 147
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 140

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Ala Ala Ala His
115 120 125

His His His His His Gly Ala Glu Phe Glu Gln Lys Leu Ile Ser Glu
130 135 140

Glu Asp Leu
145

<210> 141
<211> 150
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 141

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

Ala Ala His His His His His His Gly Ala Glu Phe Glu Gln Lys Leu
130 135 140

Ile Ser Glu Glu Asp Leu
145 150

<210> 142
<211> 134
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 142

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 Gly Ala Glu Phe Glu Gln Lys Leu
115 120 125

Ile Ser Glu Glu Asp Leu
130

<210> 143
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 143

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> 144

<211> 274

<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 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> 145
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 145

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

Glu Glu Asp Leu
130

<210> 146
<211> 371
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 146

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Pro Lys Ser Ser
130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
145 150 155 160

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

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
195 200 205

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

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
245 250 255

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

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys

370

<210> 147
<211> 382
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 147

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 Cys 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 Gly Gly Gly Gly Ser Gly Gly Gly
 225 230 235 240

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

Ser Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala Gly
 260 265 270

Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser
 275 280 285

Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe
 290 295 300

Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp Ser
 305 310 315 320

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val
 325 330 335

Asp Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr
 340 345 350

Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr
 355 360 365

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
 370 375 380

<210> 148
<211> 506
<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 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 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
355 360 365

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Val Gln
370 375 380

Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala Gly Gly Ser Leu Arg

385 390 395 400
 Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly
 405 410 415
 Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile
 420 425 430
 Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp Ser Val Lys Gly Arg
 435 440 445
 Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Asp Leu Gln Met
 450 455 460
 Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala
 465 470 475 480
 Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly
 485 490 495
 Gln Gly Thr Gln Val Thr Val Ser Ser Gly
 500 505

 <210> 149
 <211> 504
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 149
 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 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
355 360 365

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

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

Cys Ala Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe
405 410 415

Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp
420 425 430

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

Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Asp Leu Gln Met Asn Ser
450 455 460

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly
465 470 475 480

Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly

485

490

495

Thr Gln Val Thr Val Ser Ser Gly
500

<210> 150

<211> 646

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 150

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
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
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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
500 505 510

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Val Gln Leu Val Glu Ser
515 520 525

Gly Gly Gly Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala
530 535 540

Ala Ser Gly Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln
545 550 555 560

Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly
565 570 575

Asp Ser Thr Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser

580

585

590

Arg Asp Asn Ala Lys Asn Thr Val Asp Leu Gln Met Asn Ser Leu Lys
 595 600 605

Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Gly Ser Thr
 610 615 620

Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
 625 630 635 640

Val Thr Val Ser Ser Gly
 645

<210> 151
 <211> 258
 <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 Ala Val Gln Leu Val Glu Ser Gly Gly Gly
 130 135 140

Ser Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly
 145 150 155 160

Arg Thr Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly
 165 170 175

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

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

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

Thr Ala Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly
 225 230 235 240

Thr Leu Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
 245 250 255

Ser Ser

<210> 152

<211> 258

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 152

Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala Gly Gly

1	5	10	15
Ser	Leu	Arg	Leu
	20		
Thr	Cys	Ala	Ala
		25	
Ser	Gly	Arg	Thr
			30
Ser	Arg	Ser	Tyr
Gly	Met	Gly	Trp
	35		
Phe	Arg	Gln	Ala
		40	
Pro	Gly	Lys	Glu
			45
Arg	Glu	Phe	Val
Ser	Gly	Ile	Ser
	50		
Trp	Arg	Gly	Asp
		55	
Ser	Thr	Gly	Tyr
			60
Ala	Asp	Ser	Val
Lys	Gly	Arg	Phe
	65		
Thr	Ile	Ser	Arg
	70		
Asp	Asn	Ala	Lys
		75	
Asn	Thr	Val	Asp
			80
Leu	Gln	Met	Asn
			85
Ser	Leu	Lys	Pro
Glu	Asp	Thr	Ala
	90		
Ile	Tyr	Tyr	Cys
			95
Ala	Ala	Ala	Ala
			100
Gly	Ser	Thr	Trp
			105
Tyr	Gly	Thr	Leu
Tyr	Glu	Tyr	Asp
			110
Tyr	Trp	Gly	Gln
	115		
Gly	Thr	Gln	Val
			120
Thr	Val	Ser	Ser
Gly	Gly	Gly	Gly
			125
Ser	Gly	Gly	Gly
	130		
Ser	Gly	Gly	Gly
			135
Ser	Gly	Gly	Gly
			140
Gly	Gly	Gly	Gly
Ser	Ala	Ser	Val
	150		
Asn	Gln	Thr	Pro
			155
Arg	Thr	Ala	Thr
			160
Lys	Glu	Thr	Gly
Glu	Ser	Leu	Thr
	165		
Ile	Asn	Cys	Val
			170
Val	Val	Thr	Gly
			175
Ala			
Asn	Tyr	Gly	Leu
			180
Ala	Ala	Thr	Tyr
Trp	Tyr	Arg	Lys
			185
Asn	Pro	Gly	Ser
			190
Ser	Asn	Gln	Glu
Arg	Ile	Ser	Ile
			200
Ser	Gly	Arg	Tyr
Val	Glu	Ser	Val
			205
Asn	Lys	Arg	Thr
Met	Ser	Phe	Ser
			215
Leu	Arg	Ile	Lys
Asp	Leu	Thr	Val
			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

<210> 153
<211> 261
<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 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 Glu Val Gln Leu Val Glu Ser Gly Gly Gly
130 135 140

Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
145 150 155 160

Arg Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly
165 170 175

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

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

Ala Lys Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp
210 215 220

Thr Ala Val Tyr Tyr Cys Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn
225 230 235 240

Tyr Asn Phe Lys Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
245 250 255

Val Thr Val Ser Ser
260

<210> 154
<211> 261
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 154

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg
145 150 155 160

Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Val
165 170 175

Thr Gly Ala Asn Tyr Gly Leu Ala Ala Thr Tyr Trp Tyr Arg Lys Asn
180 185 190

Pro Gly Ser Ser Asn Gln Glu Arg Ile Ser Ile Ser Gly Arg Tyr Val
195 200 205

Glu Ser Val Asn Lys Arg Thr Met Ser Phe Ser Leu Arg Ile Lys Asp
210 215 220

Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Tyr Pro Trp
225 230 235 240

Gly Ala Gly Ala Pro Trp Leu Val Gln Trp Tyr Asp Gly Ala Gly Thr

245

250

255

Val Leu Thr Val Asn
260

<210> 155
<211> 261
<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 Ala Val Gln Leu Val Glu Ser
130 135 140

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

145		150		155		160									
Ala	Ser	Gly	Arg	Thr	Ser	Arg	Ser	Tyr	Gly	Met	Gly	Trp	Phe	Arg	Gln
				165					170					175	
Ala	Pro	Gly	Lys	Glu	Arg	Glu	Phe	Val	Ser	Gly	Ile	Ser	Trp	Arg	Gly
			180					185					190		
Asp	Ser	Thr	Gly	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser
		195					200					205			
Arg	Asp	Asn	Ala	Lys	Asn	Thr	Val	Asp	Leu	Gln	Met	Asn	Ser	Leu	Lys
	210					215					220				
Pro	Glu	Asp	Thr	Ala	Ile	Tyr	Tyr	Cys	Ala	Ala	Ala	Ala	Gly	Ser	Thr
225					230					235					240
Trp	Tyr	Gly	Thr	Leu	Tyr	Glu	Tyr	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Gln
				245					250					255	
Val	Thr	Val	Ser	Ser											
			260												

<210> 156
 <211> 261
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Artificial Sequence

 <400> 156

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

50

55

60

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
 100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 130 135 140

Gly Gly Gly Gly Ser 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 Leu Thr Asp Thr
 165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
 180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
 195 200 205

Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
 210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile
 225 230 235 240

Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr
 245 250 255

Val Leu Thr Val Asn
 260

<210> 157
<211> 264
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 157

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 Glu Val Gln Leu Val Glu Ser
130 135 140

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala
145 150 155 160

Ala Ser Gly Arg Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln
165 170 175

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

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

Arg Asp Asn Ala Lys Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys
210 215 220

Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Tyr Gln Ile Asn
225 230 235 240

Ser Gly Asn Tyr Asn Phe Lys Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln
245 250 255

Gly Thr Gln Val Thr Val Ser Ser
260

<210> 158
<211> 264
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 158

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser Val Asn Gln Thr Pro Arg
145 150 155 160

Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu
165 170 175

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

Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val
195 200 205

Glu Ser Val Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp
210 215 220

Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly
225 230 235 240

Met Ala Ile Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly
245 250 255

Ala Gly Thr Val Leu Thr Val Asn
260

<210> 159
<211> 398
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 159

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 Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Gln Ala
 275 280 285

Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Ser Arg
 290 295 300

Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
 305 310 315 320

Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr Ala Asp
 325 330 335

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
 340 345 350

Val Asp Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr
 355 360 365

Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu
 370 375 380

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
 385 390 395

<210> 160

<211> 398

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 160

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser 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 Leu Thr Asp Thr
165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Arg Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Gly Met Ala Ile
225 230 235 240

Ser Thr Gly Ser Gly His Gly Tyr Asn Trp Tyr Asp Gly Ala Gly Thr
245 250 255

Val Leu Thr Val Asn Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
260 265 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Ser
275 280 285

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

Thr Ile Asn Cys Val Leu Thr Asp Thr Ser Tyr Gly Leu Tyr Ser Thr
305 310 315 320

Ser Trp Phe Arg Lys Asn Pro Gly Thr Thr Asp Trp Glu Arg Met Ser
325 330 335

Ile Gly Gly Arg Tyr Val Glu Ser Val Asn Lys Arg Ala Lys Ser Phe
340 345 350

Ser Leu Arg Ile Lys Asp Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr
355 360 365

Cys Lys Ala Gln Ser Gly Met Ala Ile Ser Thr Gly Ser Gly His Gly
370 375 380

Tyr Asn Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
385 390 395

<210> 161

<211> 256
<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 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 Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val
130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
145 150 155 160

Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
165 170 175

Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr

180

185

190

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

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

Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu
 225 230 235 240

Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
 245 250 255

<210> 162
 <211> 256
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Artificial Sequence

<400> 162

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp

100

105

110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 130 135 140

Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr
 145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr
 165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
 180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
 195 200 205

Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
 210 215 220

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

Trp Leu Arg Gln Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
 245 250 255

<210> 163

<211> 256

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 163

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 Ala Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val
 130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
 145 150 155 160

Ser Arg Ser Tyr Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
 165 170 175

Arg Glu Phe Val Ser Gly Ile Ser Trp Arg Gly Asp Ser Thr Gly Tyr
 180 185 190

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

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

Ile Tyr Tyr Cys Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu
 225 230 235 240

Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
245 250 255

<210> 164
<211> 256
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 164

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
130 135 140

Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg Thr Ala Thr
145 150 155 160

Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu Thr Asp Thr
165 170 175

Ser Tyr Gly Leu Tyr Ser Thr Ser Trp Phe Arg Lys Asn Pro Gly Thr
180 185 190

Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val Glu Ser Val
195 200 205

Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp Leu Thr Val
210 215 220

Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Leu Ala Ile Ser
225 230 235 240

Thr Arg Ser Tyr Trp Tyr Asp Gly Ala Gly Thr Val Leu Thr Val Asn
245 250 255

<210> 165
<211> 259
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 165

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 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
130 135 140

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
145 150 155 160

Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
165 170 175

Arg Glu Phe Val Val Ala Ile Asn Trp Ser Ser Gly Ser Thr Tyr Tyr
180 185 190

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

Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
210 215 220

Val Tyr Tyr Cys Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn
225 230 235 240

Phe Lys Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr
245 250 255

Val Ser Ser

<210> 166
<211> 259
<212> PRT
<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 166

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
100 105 110

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Thr Arg Val Asp Gln Thr Pro Arg
145 150 155 160

Thr Ala Thr Lys Glu Thr Gly Glu Ser Leu Thr Ile Asn Cys Val Leu
165 170 175

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

Pro Gly Thr Thr Asp Trp Glu Arg Met Ser Ile Gly Gly Arg Tyr Val

195

200

205

Glu Ser Val Asn Lys Gly Ala Lys Ser Phe Ser Leu Arg Ile Lys Asp
 210 215 220

Leu Thr Val Ala Asp Ser Ala Thr Tyr Tyr Cys Lys Ala Gln Ser Leu
 225 230 235 240

Ala Ile Ser Thr Arg Ser Tyr Trp Tyr Asp Gly Ala Gly Thr Val Leu
 245 250 255

Thr Val Asn

<210> 167

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 167

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

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

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

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

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

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

Ala Ala Ala Ala Gly Ser Thr Trp Tyr Gly Thr Leu Tyr Glu Tyr Asp

100

105

110

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

<210> 168

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 168

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

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

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

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

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

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

Ala Ala Gly Tyr Gln Ile Asn Ser Gly Asn Tyr Asn Phe Lys Asp Tyr
 100 105 110

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

<210> 169

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Artificial Sequence

<400> 169

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
100 105

<210> 170

<211> 112

<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 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

<210> 171
<211> 249
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 171

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
245

<210> 172
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Artificial Sequence

<400> 172

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