

SEQUENCE LISTING

<110> NBE-Therapeutics AG
The Scripps Research Institute

<120> ROR1 Antibody Compositions and Related Methods

<130> 1713.1PC

<140>
<141> 2017-01-20

<150> 62/280,843
<151> 2016-01-20

<160> 161

<170> PatentIn version 3.5

<210> 1
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<212> PRT
<213> Oryctolagus cuniculus

<400> 1

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

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

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

Gly Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

Ser Arg Ser Thr Ile Thr Arg Asn Thr Asn Leu Asn Thr Val Thr Leu
65 70 75 80

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 2
<211> 118
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 2

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

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

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

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

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

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

Ala Arg Asp His Pro Ser Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 3
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<213> *Oryctolagus cuniculus*

<400> 3

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

Ser Leu Lys Leu Ser Cys Lys Ala Ser Gly Phe Asp Leu Ser Asn Tyr
20 25 30

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

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

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

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

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

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

<210> 4
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<212> PRT
<213> *Oryctolagus cuniculus*

<400> 4

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

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

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

Gly Ala Ile Gly Thr Gly Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

Ser Arg Ser Thr Ile Thr Arg Asn Thr Asn Leu Ser Thr Val Thr Leu
65 70 75 80

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

Arg Asp His Pro Asn Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 5
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<213> *Oryctolagus cuniculus*

<400> 5

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

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

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

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

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

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

Thr Val Ser Ser Asp Ile Trp Gly Pro Gly Thr Leu Val Thr Ile Ser
100 105 110

Ser

<210> 6
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<212> PRT
<213> Oryctolagus cuniculus

<400> 6

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

Ser Leu Lys Leu Ser Cys Lys Ala Ser Gly Phe Asp Phe Ser Gly Trp
20 25 30

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

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

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

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

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

Ile Ser Ser
115

<210> 7
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<213> Oryctolagus cuniculus

<400> 7

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

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

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

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 8
<211> 121
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<213> *Oryctolagus cuniculus*

<400> 8

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

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

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

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

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

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Trp
85 90 95

Ala Thr Asp Gly Ile Phe Asp Tyr Asp Asp Thr Phe Asn Leu Trp Gly

100

105

110

Pro Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 9

<211> 115

<212> PRT

<213> *Oryctolagus cuniculus*

<400> 9

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

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

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

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

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

Lys Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Ile Tyr Phe Cys Ala
 85 90 95

Arg Asp Gly Trp Gly Ser Asp Val Trp Gly Pro Gly Thr Leu Val Thr
 100 105 110

Ile Ser Ser
 115

<210> 10

<211> 113

<212> PRT

<213> *Oryctolagus cuniculus*

<400> 10

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro

1	5	10	15
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Tyr	20	25	30
Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly	35	40	45
Thr Ile Ser Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Val Lys Gly	50	55	60
Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr	65	70	75
Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Leu	85	90	95
Asp Tyr Asp Met Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser	100	105	110

Ser

<210> 11
 <211> 117
 <212> PRT
 <213> Oryctolagus cuniculus

<400> 11

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

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

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

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

Val Thr Val Ser Ser
115

<210> 12
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<212> PRT
<213> Oryctolagus cuniculus

<400> 12

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

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

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

Ala Ile Tyr Gly Ser Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

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

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

His Ser Thr Ala Thr Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Ile
100 105 110

Ser Ser

<210> 13
<211> 115
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 13

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

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

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

Thr Ile Tyr Gly Gly Ser Gly Asn Thr Trp Tyr Ala Thr Trp Ala Lys
50 55 60

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

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

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

Ile Ser Ser
115

<210> 14
<211> 107
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 14

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

Thr Ala Arg Ile Thr Cys Glu Gly Asn Asn Ile Gly Ser Lys Ala Val
20 25 30

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

Asp Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

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

Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 15
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<213> Oryctolagus cuniculus

<400> 15

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

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

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

Asp Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Ala Ser
50 55 60

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

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

Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 16
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<213> *Oryctolagus cuniculus*

<400> 16

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

Ser Ala Lys Leu Thr Cys Thr Leu Ser Ser Ala His Lys Thr Tyr Thr
20 25 30

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

Glu Leu Lys Ser Asp Gly Ser Tyr Thr Lys Gly Thr Gly Val Pro Asp
50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Asp Arg Tyr Leu Ile Ile Pro
65 70 75 80

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

Ser Gly Gly Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105 110

<210> 17
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<212> PRT
<213> *Oryctolagus cuniculus*

<400> 17

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

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

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

Asp Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

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

Tyr Ala Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 18
<211> 112
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 18

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

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

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

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

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

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

Gln Ser Tyr Arg Ala Ala Phe Gly Gly Gly Thr Glu Leu Glu Ile Leu
100 105 110

<210> 19

<211> 109
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 19

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

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

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

Asp Asp Asp Glu Arg Pro Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

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

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

Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 20
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<212> PRT
<213> *Oryctolagus cuniculus*

<400> 20

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

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

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

Ile Tyr Asn Asp Asp Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser

50

55

60

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

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

Ser Ala Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
 100 105 110

<210> 21

<211> 107

<212> PRT

<213> *Oryctolagus cuniculus*

<400> 21

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

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

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

Asn Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
 50 55 60

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

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

Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
 100 105

<210> 22

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<212> PRT

<213> *Oryctolagus cuniculus*

<400> 22

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

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

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

Asp Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

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

Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 23

<211> 107

<212> PRT

<213> *Oryctolagus cuniculus*

<400> 23

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

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

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

Asn Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

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

Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 24
<211> 110
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<213> *Oryctolagus cuniculus*

<400> 24

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

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

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

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

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

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

His Arg Thr Ala Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 25
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<212> PRT
<213> *Oryctolagus cuniculus*

<400> 25

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

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

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

Asn Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

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

Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 26
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<212> PRT
<213> *Oryctolagus cuniculus*

<400> 26

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

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

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

Asp Asp Asp Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

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

Phe Val Phe Gly Gly Gly Thr Gln Leu Thr Val Thr Gly
100 105

<210> 27
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<213> *Oryctolagus cuniculus*

<400> 27

Ser Tyr Tyr Met Ser
1 5

<210> 28
<211> 16
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<213> *Oryctolagus cuniculus*

<400> 28

Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys Ser
1 5 10 15

<210> 29
<211> 9
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 29

Asp His Pro Thr Tyr Gly Met Asp Leu
1 5

<210> 30
<211> 5
<212> PRT
<213> *Oryctolagus cuniculus*

<400> 30

Thr Tyr His Met Ser
1 5

<210> 31

<211> 17
<212> PRT
<213> Oryctolagus cuniculus

<400> 31

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

Gly

<210> 32
<211> 9
<212> PRT
<213> Oryctolagus cuniculus

<400> 32

Asp His Pro Ser Tyr Gly Met Asp Leu
1 5

<210> 33
<211> 5
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<213> Oryctolagus cuniculus

<400> 33

Asn Tyr Gly Val Ser
1 5

<210> 34
<211> 17
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<400> 34

Tyr Ile Asp Pro Thr Phe Asp Tyr Thr Tyr Tyr Ala Ser Trp Val Asn
1 5 10 15

Gly

<210> 35
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<213> Oryctolagus cuniculus

<400> 35

Trp	Val	Tyr	Gly	Val	Asp	Asp	Tyr	Gly	Asp	Gly	Asn	Trp	Leu	Asp	Leu
1				5					10					15	

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<211> 5

<212> PRT

<213> Oryctolagus cuniculus

<400> 36

Ser	Tyr	Tyr	Val	Ser
1				5

<210> 37

<211> 16

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<213> Oryctolagus cuniculus

<400> 37

Ala	Ile	Gly	Thr	Gly	Gly	Ser	Ala	Tyr	Tyr	Ala	Ser	Trp	Ala	Lys	Ser
1				5					10					15	

<210> 38

<211> 9

<212> PRT

<213> Oryctolagus cuniculus

<400> 38

Asp	His	Pro	Asn	Tyr	Gly	Met	Asp	Leu
1				5				

<210> 39

<211> 5

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<213> Oryctolagus cuniculus

<400> 39

Arg	Asn	Gly	Met	Thr
1				5

<210> 40

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<213> Oryctolagus cuniculus

<400> 40

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

<210> 41
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<400> 41

Gly Thr Val Ser Ser Asp Ile
1 5

<210> 42
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<400> 42

Gly Trp Tyr Met Thr
1 5

<210> 43
<211> 17
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<213> Oryctolagus cuniculus

<400> 43

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

Gly

<210> 44
<211> 7
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<213> Oryctolagus cuniculus

<400> 44

Gly Ser Asp Tyr Phe Asp Leu

1 5

<210> 45
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<400> 45

Ser Tyr Tyr Met Gly
1 5

<210> 46
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<212> PRT
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<400> 46

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

Gly

<210> 47
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<213> Oryctolagus cuniculus

<400> 47

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

<210> 48
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<400> 48

Arg Tyr Ala Val Asn
1 5

<210> 49
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<213> Oryctolagus cuniculus

<400> 49

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

<210> 50

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<213> Oryctolagus cuniculus

<400> 50

Gly	Trp	Ala	Thr	Asp	Gly	Ile	Phe	Asp	Tyr	Asp	Asp	Thr	Phe	Asn	Leu
1				5					10					15	

<210> 51

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<213> Oryctolagus cuniculus

<400> 51

Ser	Tyr	Trp	Met	Ser
1				5

<210> 52

<211> 17

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<213> Oryctolagus cuniculus

<400> 52

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

Ser

<210> 53

<211> 7

<212> PRT

<213> Oryctolagus cuniculus

<400> 53

Asp	Gly	Trp	Gly	Ser	Asp	Val
1				5		

<210> 54
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<400> 54

Ser Tyr Tyr Met Ser
1 5

<210> 55
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<400> 55

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

<210> 56
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<400> 56

Leu Tyr Val Ser Asp Ser Thr Ala Asn Leu
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<210> 57
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<400> 57

Asn Tyr Tyr Met Ser
1 5

<210> 58
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<400> 58

Ile Ile Ser Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly

1 5 10 15

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<400> 59

Leu Tyr Val Ser Asp Ser Thr Ala Asn Leu
1 5 10

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<400> 60

Ser Tyr Trp Met Ser
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<400> 61

Ala Ile Tyr Gly Ser Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
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<210> 62
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<400> 62

Asp Val His Ser Thr Ala Thr Asp Leu
1 5

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<400> 63

Asp Tyr Tyr Met Ser
1 5

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<400> 64

Thr Ile Tyr Gly Gly Ser Gly Asn Thr Trp Tyr Ala Thr Trp Ala Lys
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Gly

<210> 65
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Asp Phe Gly Leu Ser Thr Gly Gly Leu
1 5

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<400> 66

Glu Gly Asn Asn Ile Gly Ser Lys Ala Val His
1 5 10

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Asp Asp Asp Glu Arg Pro Ser
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Gln Val Trp Asp Ser Ser Ala Tyr Val
1 5

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<400> 69

Gly Gly Asn Ser Ile Gly Ser Lys Ala Val Asn
1 5 10

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1 5

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<400> 71

Gln Leu Trp Asp Ser Ser Ala Val Ala Tyr Val
1 5 10

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<400> 72

Thr Leu Ser Ser Ala His Lys Thr Tyr Thr Ile Asp
1 5 10

<210> 73

<211> 11
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<400> 73

Leu Lys Ser Asp Gly Ser Tyr Thr Lys Gly Thr
1 5 10

<210> 74
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<400> 74

Gly Thr Asp Tyr Ser Gly Gly Tyr Val
1 5

<210> 75
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<400> 75

Gly Gly Asn Ser Ile Gly Ser Lys Ala Val Asn
1 5 10

<210> 76
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<400> 76

Asp Asp Asp Glu Arg Pro Ser
1 5

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<400> 77

Gln Leu Trp Asp Ser Ser Thr Gly Ala Tyr Ala
1 5 10

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<400> 78

Gln Ala Ser Gln Ser Val Tyr Gly Asn Asn Glu Leu Ala
1 5 10

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<400> 79

Arg Ala Ser Ile Leu Thr Ser
1 5

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<400> 80

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

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<400> 81

Gly Gly Asn Ser Ile Gly Ser Lys Ala Val Asn
1 5 10

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Asp Asp Asp Glu Arg Pro Ser
1 5

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<400> 83

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

<210> 84
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<400> 84

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

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Asn Asp Asp Gln Arg Pro Ser
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Leu Ser Ser Asp Ser Ser Ala Tyr Val
1 5

<210> 87
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<400> 87

Gly Gly Asp Ser Ile Glu Ser Lys Ala Val His
1 5 10

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Gln Leu Trp Asp Gly Ser Ala Tyr Val
1 5

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<400> 90

Gly Gly Asn Ser Ile Gly Ser Lys Ala Val His
1 5 10

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Asp Asp Asp Glu Arg Pro Ser
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<400> 92

Gln Leu Trp Asp Ser Ser Ala Gly Ala Tyr Val

1 5 10

<210> 93
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<400> 93

Gly Gly Asn Ser Ile Gly Ser Lys Ala Val His
1 5 10

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<400> 94

Asn Asp Asp Glu Arg Pro Ser
1 5

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<400> 95

Gln Leu Trp Asp Asn Asn Ala Ala Val
1 5

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<400> 96

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

<210> 97
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<400> 97

Gly Ala Ser Asn Leu Ala Ser
1 5

<210> 98
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<400> 98

Leu Gly Gly Tyr Pro Asn Tyr Phe His Arg Thr Ala
1 5 10

<210> 99
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<400> 99

Gly Gly Asn Asn Ile Gly Ser Lys Ala Val Asn
1 5 10

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<400> 100

Asn Asp Asp Glu Arg Pro Ser
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<400> 101

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

<210> 102
<211> 11
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<400> 102

Gly Gly Asn Ser Ile Gly Ser Lys Ala Val Asn
1 5 10

<210> 103
<211> 7
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<400> 103

Asp Asp Asp Glu Arg Pro Ser
1 5

<210> 104
<211> 11
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<400> 104

Gln Leu Trp Asp Ser Ser Ala Arg Ala Phe Val
1 5 10

<210> 105
<211> 60
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<211> 60
<212> DNA
<213> Artificial sequence

<220>
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<400> 106
ccactcgatc ttctgggcct cgaagatgtc gttcaggccc tccatcttgt tcttctcctt 60

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<211> 60
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<400> 107

gctgggtacc ggcgcgccac catggactgg acttggagaa tcctgtttct cgtagctgct 60

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<211> 60

<212> DNA

<213> Artificial sequence

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gccggcctcg agtcagtgat ggtgatggtg gtgctcgtgc cactcgatct tctgggcctc 60

<210> 109

<211> 99

<212> DNA

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gctgggtacc ggcgcgccac catggactgg acttggagaa tcctgtttct cgtagctgct 60

gcaactggag cacactccgc ccggggcgcc gccgccag 99

<210> 110

<211> 52

<212> DNA

<213> Artificial sequence

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<400> 110

cggcctcgag tcagtgatgg tgatggtggt gtcctatctt gttcttctcc tt 52

<210> 111

<211> 99

<212> DNA

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gcaactggag cacactccga agtggagggt ctggatccg 99

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<400> 113
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<210> 114
<211> 60
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<400> 114
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<400> 115
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<210> 116
<211> 21
<212> DNA
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<400> 116
ggccatggct ggttgggcag c 21

<210> 117
<211> 60
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<220>
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<400> 117
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<400> 118
gccgctggtc agggctcctg 20

<210> 119
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<400> 119
caggagccct gaccagcggc 20

<210> 120
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<220>

<223> Synthetic sequence

<400> 120

ggcctcgagt catttaccgc gagacaggga

30

<210> 121

<211> 54

<212> DNA

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54

<210> 122

<211> 54

<212> PRT

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<220>

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<400> 122

Thr Thr Thr Cys Thr Cys Gly Thr Ala Gly Cys Thr Gly Cys Thr Gly
1 5 10 15

Cys Ala Ala Cys Thr Gly Gly Ala Gly Cys Ala Cys Ala Cys Thr Cys
20 25 30

Cys Cys Ala Gly Thr Cys Gly Thr Thr Gly Gly Ala Gly Gly Ala Gly
35 40 45

Thr Cys Cys Gly Gly Gly
50

<210> 123

<211> 54

<212> DNA

<213> Artificial sequence

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<400> 123

tttctcgtag ctgctgcaac tggagcacac tcccagtcgt tggaggagtc cggg

54

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<211> 36
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<400> 124

Gly Gly Ala Gly Gly Gly Cys Gly Cys Cys Ala Gly Gly Gly Gly Gly
1 5 10 15

Ala Ala Gly Ala Cys Cys Gly Ala Thr Gly Gly Gly Cys Cys Cys Thr
20 25 30

Thr Gly Gly Thr
35

<210> 125
<211> 54
<212> DNA
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<220>
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<400> 125

tttctcgtag ctgctgcaac tggagcacac tcctcctatg agctgacaca gctg

54

<210> 126
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<213> Artificial sequencee

<220>
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<400> 126

tttctcgtag ctgctgcaac tggagcacac tcctcctatg agctgacaca gctg

54

<210> 127
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<212> DNA
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<220>
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<400> 127
 tttctcgtag ctgctgcaac tggagcacac tccgagctcg tgctgaccga gact 54

<210> 128
 <211> 30
 <212> DNA
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<220>
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<400> 128
 ggccctcgagt tatgaacatt ctgtaggggc 30

<210> 129
 <211> 30
 <212> DNA
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<220>
 <223> Synthetic sequence

<400> 129
 ggccctcgagt taacactctc ccctgttgaa 30

<210> 130
 <211> 117
 <212> PRT
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<220>
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<400> 130

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

50

55

60

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

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 131
<211> 117
<212> PRT
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<400> 131

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

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

Gly Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

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

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu

100

105

110

Val Thr Val Ser Ser
115

<210> 132
<211> 117
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<220>
<223> Synthetic sequence

<400> 132

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

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

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

Gly Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

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

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 133
<211> 117
<212> PRT
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<400> 133

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

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

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

Gly Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

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

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 134

<211> 117

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 134

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

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

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

Gly Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

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

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 135
<211> 117
<212> PRT
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<220>
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<400> 135

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

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

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

Gly Ala Ile Gly Ile Ser Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

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

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

Arg Asp His Pro Thr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 136
<211> 107
<212> PRT
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<220>
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<400> 136

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

Thr Ala Arg Ile Thr Cys Glu Gly Asn Asn Ile Gly Ser Lys Ala Val
20 25 30

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

Asp Asp Asp Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Ala Gln Ala Gly
65 70 75 80

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

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

<210> 137
<211> 107
<212> PRT

<213> Artificial sequence

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<400> 137

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

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

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

Asp Asp Asp Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Val Ser Gly Thr Gln Asp Met
65 70 75 80

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

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

<210> 138

<211> 107

<212> PRT

<213> Artificial sequence

<220>

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<400> 138

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

Thr Ala Arg Ile Thr Cys Glu Gly Asn Asn Ile Gly Ser Lys Ala Val
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr

35

40

45

Asp Asp Asp Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
 50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
 65 70 75 80

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

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

<210> 139

<211> 107

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 139

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

Thr Ala Arg Ile Thr Cys Glu Gly Asn Asn Ile Gly Ser Lys Ala Val
 20 25 30

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

Asp Asp Asp Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
 50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
 65 70 75 80

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

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly

100

105

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<400> 140

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

Thr Ala Arg Ile Thr Cys Glu Gly Asn Asn Ile Gly Ser Lys Ala Val
 20 25 30

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

Asp Asp Asp Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
 50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
 65 70 75 80

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

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

<210> 141
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<220>
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<400> 141

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

Thr Ala Arg Ile Thr Cys Glu Gly Asn Asn Ile Gly Ser Lys Ala Val
20 25 30

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

Asp Asp Asp Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Ala Gln Ala Gly
65 70 75 80

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

Phe Gly Gly Gly Thr Gln Leu Thr Val Leu Gly
100 105

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<222> (3)..(3)
<223> X is any amino acid residue

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Leu Pro Xaa Ser Gly
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<210> 143
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<220>
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<223> X is any amino acid residue

<400> 143

Leu Pro Xaa Ala Gly
1 5

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<400> 144

Leu Pro Xaa Thr Gly
1 5

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<222> (3)..(3)
<223> X is any amino acid residue

<400> 145

Leu Ala Xaa Thr Gly
1 5

<210> 146
<211> 5
<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 146

Asn Pro Gln Thr Gly
1 5

<210> 147

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X is any amino acid residue

<400> 147

Leu Pro Xaa Thr
1

<210> 148

<211> 460

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 148

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

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

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

Gly Ser Phe Asp Pro Tyr Asp Gly Gly Ser Ser Tyr Asn Gln Lys Phe

50

55

60

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
450 455 460

<210> 149
<211> 233
<212> PRT
<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 149

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

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

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

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

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

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

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

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

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

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

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

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

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

195

200

205

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

Gly Trp Ser His Pro Gln Phe Glu Lys
 225 230

<210> 150

<211> 462

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 150

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

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

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

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

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

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

Thr Gly Tyr Tyr Asp Tyr Asp Ser Phe Thr Tyr Trp Gly Gln Gly Thr
 100 105 110

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

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly

130

135

140

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Leu Pro Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
450 455 460

<210> 151
<211> 233
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 151

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

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

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

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

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

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

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

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

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

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

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

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

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

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

Gly Trp Ser His Pro Gln Phe Glu Lys
225 230

<210> 152
<211> 462
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 152

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

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

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

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

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

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

Thr Gly Tyr Tyr Asp Tyr Asp Ser Phe Thr Tyr Trp Gly Gln Gly Thr
100 105 110

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

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

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

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

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

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

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

210

215

220

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Leu Pro Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
450 455 460

<210> 153
<211> 233
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 153

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

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

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

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

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

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

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

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

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

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

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

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

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

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

Gly Trp Ser His Pro Gln Phe Glu Lys
225 230

<210> 154
<211> 460
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 154

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

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

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

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

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

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

Ser Thr Tyr Tyr Gly Asp Phe Asn Ile Trp Gly Pro Gly Thr Leu Val
100 105 110

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

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

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

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

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

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

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

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

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

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

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

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

290

295

300

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

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

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

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

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

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

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

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

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

Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
 450 455 460

<210> 155

<211> 236

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic sequence

<400> 155

Glu Leu Val Met Thr Gln Thr Pro Ser Ser Thr Ser Gly Ala Val Gly

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

Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
225 230 235

<210> 156
<211> 465
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 156

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

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

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

Ala Thr Ile Tyr Pro Ser Ser Gly Lys Thr Tyr Tyr Ala Thr Trp Val
50 55 60

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

370

375

380

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

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

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

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

Pro Gly Lys Leu Pro Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu
 450 455 460

Lys
 465

<210> 157
 <211> 236
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic sequence

<400> 157

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

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

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

Gln Val Gln Ser Asp Gly Ser Tyr Thr Lys Arg Pro Gly Val Pro Asp
 50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Asp Arg Tyr Leu Ile Ile Pro

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

<210> 158
 <211> 450
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Synthetic sequence

 <400> 158

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

1	5	10	15
Ser	Leu	Arg	Leu
	20		
Ser	Cys	Ala	Ala
		25	
Ser	Gly	Phe	Asn
			30
Ile	Lys	Asp	Thr
Tyr	Ile	His	Trp
	35		
Val	Arg	Gln	Ala
		40	
Pro	Gly	Lys	Gly
			45
Leu	Glu	Trp	Val
Ala	Arg	Ile	Tyr
	50		
Pro	Thr	Asn	Gly
		55	
Tyr	Thr	Arg	Tyr
			60
Ala	Asp	Ser	Val
Lys	Gly	Arg	Phe
	65		
Thr	Ile	Ser	Ala
	70		
Asp	Thr	Ser	Lys
		75	
Asn	Thr	Ala	Tyr
			80
Leu	Gln	Met	Asn
			85
Ser	Leu	Arg	Ala
Glu	Asp	Thr	Ala
	90		
Val	Tyr	Tyr	Cys
			95
Ser	Arg	Trp	Gly
			100
Gly	Asp	Gly	Phe
			105
Ala	Met	Asp	Tyr
			110
Trp	Gly	Gln	
Gly	Thr	Leu	Val
			115
Thr	Val	Ser	Ser
			120
Ala	Ser	Thr	Lys
			125
Gly	Pro	Ser	Val
Phe	Pro	Leu	Ala
	130		
Pro	Ser	Ser	Lys
			135
Ser	Thr	Ser	Gly
			140
Gly	Gly	Thr	Ala
Leu	Gly	Cys	Leu
	145		
Val	Lys	Asp	Tyr
			150
Phe	Pro	Glu	Pro
			155
Val	Thr	Val	Ser
			160
Trp	Asn	Ser	Gly
			165
Ala	Leu	Thr	Ser
Gly	Val	His	Thr
			170
Phe	Pro	Ala	Val
			175
Leu	Gln	Ser	Ser
			180
Gly	Leu	Tyr	Ser
			185
Leu	Ser	Ser	Val
Val	Thr	Val	Pro
			190
Ser	Ser	Ser	Leu
			195
Gly	Thr	Gln	Thr
			200
Tyr	Ile	Cys	Asn
			205
Val	Asn	His	Lys
Pro	Ser	Asn	Thr
			210
Lys	Val	Asp	Lys
			215
Lys	Val	Glu	Pro
			220
Lys	Ser	Cys	Asp

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

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

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

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

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

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

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

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

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

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

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

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

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro

435

440

445

Gly Lys
450

<210> 159
<211> 214
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 159

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

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

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

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

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

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

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

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

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln

145		150		155		160
Glu Ser Val Thr	Glu Gln Asp Ser Lys	Asp Ser Thr Tyr Ser	Leu Ser			
	165	170	175			
Ser Thr Leu Thr	Leu Ser Lys Ala	Asp Tyr Glu Lys His	Lys Val Tyr			
	180	185	190			
Ala Cys Glu Val Thr His Gln Gly	Leu Ser Ser Pro Val Thr Lys Ser					
	195	200	205			
Phe Asn Arg Gly Glu Cys						
	210					
<210> 160						
<211> 461						
<212> PRT						
<213> Artificial sequence						
<220>						
<223> Synthetic sequence						
<400> 160						
Gln Ile Gln Leu Gln Gln Ser Gly Pro Glu Val Val Lys Pro Gly Ala						
1	5	10	15			
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr						
	20	25	30			
Tyr Ile Thr Trp Val Lys Gln Lys Pro Gly Gln Gly Leu Glu Trp Ile						
	35	40	45			
Gly Trp Ile Tyr Pro Gly Ser Gly Asn Thr Lys Tyr Asn Glu Lys Phe						
	50	55	60			
Lys Gly Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser Thr Ala Phe						
65	70	75	80			
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Phe Cys						
	85	90	95			
Ala Asn Tyr Gly Asn Tyr Trp Phe Ala Tyr Trp Gly Gln Gly Thr Gln						

100

105

110

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Pro Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
450 455 460

<210> 161
<211> 237
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic sequence

<400> 161

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

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

Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

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

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
100 105 110

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
115 120 125

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

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

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

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

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

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

Pro Glu Thr Gly Gly Trp Ser His Pro Gln Phe Glu Lys
225 230 235