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SEQUENCE LISTING

<110> Ablynx NV

<120> Improved serum albumin binders

<130> 202810

<150> US62/446,988

<151> 2017-01-17

<160> 63

<170> PatentIn version 3.5

<210> 1

<211> 115

<212> PRT

<213> Artificial Sequence

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<223> Reference

<400> 1

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

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

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

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

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

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

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

Val Ser Ser
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<400> 2

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

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

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

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

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

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

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

Val Ser Ser
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<223> CDR1 (Kabat)

<400> 3

Ser Phe Gly Met Ser
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<223> CDR2 (Kabat)

<400> 4

Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys
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Gly

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Gly Gly Ser Leu Ser Arg
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 <223> CDR1 (Abm)

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Gly Phe Thr Phe Arg Ser Phe Gly Met Ser
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 <223> CDR2 (Abm)

<400> 7

Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu
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 <223> CDR3 (Kabat/Abm)

<400> 8

Gly Gly Ser Leu Ser Arg
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<223> CDR1 (Kabat)

<400> 9

Thr Tyr Val Met Gly
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<223> CDR2 (Kabat)

<400> 10

Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val Lys
1 5 10 15

Gly

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<400> 11

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

Gly

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<400> 12

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

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 <223> CDR2 (Abm)

<400> 13

Ala Ile Ser Gln Asn Ser Ile His Thr Tyr
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<400> 14

Ser Arg Phe Thr Ser Trp Tyr Thr Ala Asp Tyr Glu Tyr Asp Tyr
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<400> 15

Val Thr Val Ser Ser
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<400> 16

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
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 <223> 35 GS linker

<400> 17

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
 20 25 30

Gly Gly Ser
 35

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<400> 18

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

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<400> 19

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

<210> 20

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> ISVD

<400> 20

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

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

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

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

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

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

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

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

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<211> 124
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<400> 21

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

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<400> 22

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

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

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

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

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

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

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

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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<400> 23

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

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

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

Ala Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

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<400> 24

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

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

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

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

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

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

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

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

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<400> 25

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

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

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

Ala Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

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<211> 124

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

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

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

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

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

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

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

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<211> 125
<212> PRT
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<400> 27

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

<210> 28
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<212> PRT
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<400> 28

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

<210> 29

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<212> PRT

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<400> 29

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

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

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

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

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

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

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

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

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<400> 30

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

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<212> PRT
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<400> 31

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

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

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

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

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

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

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

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

<210> 32

<211> 125

<212> PRT

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<400> 32

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

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

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

Ala Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

<210> 33
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<400> 33

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

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

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

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

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

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

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

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

<210> 34
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<212> PRT
<213> Artificial Sequence

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<223> ISVD

<400> 34

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

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

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

Ala Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

<210> 35

<211> 125

<212> PRT

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<400> 35

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

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

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

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

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

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

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

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

<210> 36
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<400> 36

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

<210> 37
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<212> PRT
<213> Artificial Sequence

<220>
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<400> 37

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

<210> 38

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<212> PRT

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<400> 38

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

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

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

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

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

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

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

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

<210> 39
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<400> 39

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ala Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

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

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

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

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

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

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

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

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

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

<210> 43
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<400> 43

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

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

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

Ala Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

<210> 44

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> ISVD

<400> 44

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

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

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

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

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

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

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

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

<210> 45
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> anti-HER2-Nanobody

<400> 45

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 Ile Thr Phe Ser Ile Asn
20 25 30

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 46
<211> 278
<212> PRT
<213> Artificial Sequence

<220>
<223> bivalent bispecific compound

<400> 46

Asp 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 Ile Thr Phe Ser Ile Asn
 20 25 30

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

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

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

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

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

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

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
 145 150 155 160

Gly Gly Gly Val Val Gln Pro Gly Asp Ser Leu Arg Leu Ser Cys Ala
 165 170 175

Ala Ser Gly Gly Thr Phe Ser Thr Tyr Val Met Gly Trp Phe Arg Gln
 180 185 190

Ala Pro Gly Lys Glu Arg Glu Phe Val Ser Ala Ile Ser Gln Asn Ser
 195 200 205

Ile His Thr Tyr Tyr Ala Asn Ser Val Lys Gly Arg Phe Thr Ile Ser
 210 215 220

Arg Asp Asn Ser Lys Asn Thr Val Tyr Leu Gln Leu Asn Ser Leu Arg
 225 230 235 240

Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Ala Ser Arg Phe Thr Ser
 245 250 255

Trp Tyr Thr Ala Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
 260 265 270

Val Thr Val Ser Ser Ala
 275

<210> 47
 <211> 258
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> bivalent bispecific compound

<400> 47

Asp 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 Ile Thr Phe Ser Ile Asn
 20 25 30

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

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

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

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

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

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

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

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

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

165

170

175

Glu Arg Glu Phe Val Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr
 180 185 190

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

Lys Asn Thr Val Tyr Leu Gln Leu Asn Ser Leu Arg Pro Glu Asp Thr
 210 215 220

Ala Leu Tyr Tyr Cys Ala Ala Ser Arg Phe Thr Ser Trp Tyr Thr Ala
 225 230 235 240

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

Ser Ala

<210> 48
 <211> 258
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> bivalent bispecific compound

<400> 48

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
 50 55 60

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

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

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

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

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

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

Cys Ala Ala Ser Gly Ile Thr Phe Ser Ile Asn Thr Met Gly Trp Tyr
165 170 175

Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala Leu Ile Ser Ser
180 185 190

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

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

Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Lys Arg Phe Arg Thr Ala
225 230 235 240

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

Ser Ala

<210> 49
<211> 278
<212> PRT
<213> Artificial Sequence

<220>
<223> bivalent bispecific compound

<400> 49

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

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

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

Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn Ser Val
50 55 60

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

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

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

Tyr Trp Gly Gln Gly Thr Leu 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 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu
145 150 155 160

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser
165 170 175

Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Ser Ile Asn Thr
180 185 190

Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
195 200 205

Leu Ile Ser Ser Ile Gly Asp Thr Tyr Tyr Ala Asp Ser Val Lys Gly
210 215 220

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln
225 230 235 240

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Lys Arg
245 250 255

Phe Arg Thr Ala Ala Gln Gly Thr Asp Tyr Trp Gly Gln Gly Thr Leu
260 265 270

Val Thr Val Ser Ser Ala
275

<210> 50
<211> 431

<212> PRT

<213> Artificial Sequence

<220>

<223> trivalent bispecific compound

<400> 50

Asp 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 Ile Thr Phe Ser Ile Asn
 20 25 30

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

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

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

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

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

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

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
 145 150 155 160

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala
 165 170 175

Ala Ser Gly Ile Thr Phe Ser Ile Asn Thr Met Gly Trp Tyr Arg Gln
 180 185 190

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

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

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
225 230 235 240

Glu Asp Thr Ala Val Tyr Tyr Cys Lys Arg Phe Arg Thr Ala Ala Gln
245 250 255

Gly Thr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
260 265 270

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

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
290 295 300

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro
305 310 315 320

Gly Asp Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Gly Thr Phe Ser
325 330 335

Thr Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
340 345 350

Phe Val Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr Ala Asn
355 360 365

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
370 375 380

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

Tyr Cys Ala Ala Ser Arg Phe Thr Ser Trp Tyr Thr Ala Asp Tyr Glu
405 410 415

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
420 425 430

<210> 51

<211> 431

<212> PRT

<213> Artificial Sequence

<220>

<223> trivalent bispecific compound

<400> 51

Asp	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	Ile	Thr	Phe	Ser	Ile	Asn	20	25	30	
Thr	Met	Gly	Trp	Tyr	Arg	Gln	Ala	Pro	Gly	Lys	Gln	Arg	Glu	Leu	Val	35	40	45	
Ala	Leu	Ile	Ser	Ser	Ile	Gly	Asp	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	Lys	50	55	60	
Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Thr	Val	Tyr	Leu	65	70	75	80
Gln	Met	Asn	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Lys	85	90	95	
Arg	Phe	Arg	Thr	Ala	Ala	Gln	Gly	Thr	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	100	105	110	
Leu	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	115	120	125	
Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	130	135	140	
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Ser	145	150	155	160
Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Asp	Ser	Leu	Arg	Leu	Ser	Cys	Ala	165	170	175	
Ala	Ser	Gly	Gly	Thr	Phe	Ser	Thr	Tyr	Val	Met	Gly	Trp	Phe	Arg	Gln	180	185	190	
Ala	Pro	Gly	Lys	Glu	Arg	Glu	Phe	Val	Ser	Ala	Ile	Ser	Gln	Asn	Ser	195	200	205	
Ile	His	Thr	Tyr	Tyr	Ala	Asn	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	210	215	220	
Arg	Asp	Asn	Ser	Lys	Asn	Thr	Val	Tyr	Leu	Gln	Leu	Asn	Ser	Leu	Arg	225	230	235	240
Pro	Glu	Asp	Thr	Ala	Leu	Tyr	Tyr	Cys	Ala	Ala	Ser	Arg	Phe	Thr	Ser	245	250	255	

Trp Tyr Thr Ala Asp Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
260 265 270

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
275 280 285

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
290 295 300

Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
305 310 315 320

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
325 330 335

Ser Gly Ile Thr Phe Ser Ile Asn Thr Met Gly Trp Tyr Arg Gln Ala
340 345 350

Pro Gly Lys Gln Arg Glu Leu Val Ala Leu Ile Ser Ser Ile Gly Asp
355 360 365

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
370 375 380

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

Asp Thr Ala Val Tyr Tyr Cys Lys Arg Phe Arg Thr Ala Ala Gln Gly
405 410 415

Thr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
420 425 430

<210> 52

<211> 431

<212> PRT

<213> Artificial Sequence

<220>

<223> trivalent bispecific compound

<400> 52

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

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

Val	Met	Gly	Trp	Phe	Arg	Gln	Ala	Pro	Gly	Lys	Glu	Arg	Glu	Phe	Val
		35					40					45			
Ser	Ala	Ile	Ser	Gln	Asn	Ser	Ile	His	Thr	Tyr	Tyr	Ala	Asn	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Val	Tyr
65					70					75					80
Leu	Gln	Leu	Asn	Ser	Leu	Arg	Pro	Glu	Asp	Thr	Ala	Leu	Tyr	Tyr	Cys
			85						90					95	
Ala	Ala	Ser	Arg	Phe	Thr	Ser	Trp	Tyr	Thr	Ala	Asp	Tyr	Glu	Tyr	Asp
			100					105					110		
Tyr	Trp	Gly	Gln	Gly	Thr	Leu	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	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Glu
145					150					155					160
Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Ala	Gly	Gly	Ser
				165					170						175
Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Ile	Thr	Phe	Ser	Ile	Asn	Thr
			180					185					190		
Met	Gly	Trp	Tyr	Arg	Gln	Ala	Pro	Gly	Lys	Gln	Arg	Glu	Leu	Val	Ala
		195					200					205			
Leu	Ile	Ser	Ser	Ile	Gly	Asp	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	Lys	Gly
	210					215					220				
Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Thr	Val	Tyr	Leu	Gln
225					230					235					240
Met	Asn	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Lys	Arg
				245					250					255	
Phe	Arg	Thr	Ala	Ala	Gln	Gly	Thr	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu
			260					265					270		
Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly
		275					280					285			

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
290 295 300

Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
305 310 315 320

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
325 330 335

Ser Gly Ile Thr Phe Ser Ile Asn Thr Met Gly Trp Tyr Arg Gln Ala
340 345 350

Pro Gly Lys Gln Arg Glu Leu Val Ala Leu Ile Ser Ser Ile Gly Asp
355 360 365

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
370 375 380

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

Asp Thr Ala Val Tyr Tyr Cys Lys Arg Phe Arg Thr Ala Ala Gln Gly
405 410 415

Thr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
420 425 430

<210> 53
<211> 448
<212> PRT
<213> Artificial Sequence

<220>
<223> trivalent construct

<400> 53

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly 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

Ala Ala Ile Ser Trp Ser Asp 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 Tyr
 65 70 75 80

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

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

 Ala Tyr Asp Tyr Trp Gly Gln Gly Thr Leu 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 Gly Gly Gly Gly Ser Gly Gly Gly
 145 150 155 160

 Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro
 165 170 175

 Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
 180 185 190

 Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
 195 200 205

 Phe Val Ala Ala Ile Ser Trp Ser Asp Gly Ser Thr Tyr Tyr Ala Asp
 210 215 220

 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
 225 230 235 240

 Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr
 245 250 255

 Tyr Cys Ala Ala Asp Leu Thr Ser Thr Asn Pro Gly Ser Tyr Ile Tyr
 260 265 270

 Ile Trp Ala Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 275 280 285

 Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 290 295 300

 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 305 310 315 320

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val
325 330 335

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Gly Thr
340 345 350

Phe Ser Thr Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
355 360 365

Arg Glu Phe Val Ser Ala Ile Ser Gln Asn Ser Ile His Thr Tyr Tyr
370 375 380

Ala Asn Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
385 390 395 400

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala
405 410 415

Leu Tyr Tyr Cys Ala Ala Ser Arg Phe Thr Ser Trp Tyr Thr Ala Asp
420 425 430

Tyr Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
435 440 445

<210> 54
<211> 609
<212> PRT
<213> Homo sapiens

<400> 54

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu
35 40 45

Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp
85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala
 100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
 115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
 130 135 140

Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys
 145 150 155 160

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro
 165 170 175

Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys
 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu
 195 200 205

Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys
 210 215 220

Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val
 225 230 235 240

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

Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly
 260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile
 275 280 285

Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu
 290 295 300

Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp
 305 310 315 320

Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser
 325 330 335

Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly

340

345

350

Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val
 355 360 365

Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys
 370 375 380

Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu
 385 390 395 400

Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys
 405 410 415

Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu
 420 425 430

Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val
 435 440 445

Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His
 450 455 460

Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val
 465 470 475 480

Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg
 485 490 495

Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe
 500 505 510

Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala
 515 520 525

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu
 530 535 540

Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys
 545 550 555 560

Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala
 565 570 575

Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe
 580 585 590

Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
 595 600 605

Leu

<210> 55
 <211> 607
 <212> PRT
 <213> Mus musculus

<400> 55

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

Phe Ser Arg Gly Phe Arg Arg Glu Ala His Lys Ser Glu Ile Ala His
 20 25 30

Arg Tyr Asn Asp Leu Gly Glu Gln His Phe Lys Gly Leu Val Leu Ile
 35 40 45

Ala Phe Ser Gln Tyr Leu Gln Lys Cys Ser Tyr Asp Glu His Ala Lys
 50 55 60

Leu Val Gln Glu Val Thr Asp Phe Ala Lys Thr Cys Val Ala Asp Glu
 65 70 75 80

Ser Ala Ala Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys
 85 90 95

Leu Cys Ala Ile Pro Asn Leu Arg Glu Asn Tyr Gly Glu Leu Ala Asp
 100 105 110

Cys Cys Thr Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His
 115 120 125

Lys Asp Asp Asn Pro Ser Leu Pro Pro Phe Glu Arg Pro Glu Ala Glu
 130 135 140

Ala Met Cys Thr Ser Phe Lys Glu Asn Pro Thr Thr Phe Met Gly His
 145 150 155 160

Tyr Leu His Glu Val Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu
 165 170 175

Leu Leu Tyr Tyr Ala Glu Gln Tyr Asn Glu Ile Leu Thr Gln Cys Cys
 180 185 190

Ala	Glu	Ala	Asp	Lys	Glu	Ser	Cys	Leu	Thr	Pro	Lys	Leu	Asp	Gly	Val
	195						200					205			
Lys	Glu	Lys	Ala	Leu	Val	Ser	Ser	Val	Arg	Gln	Arg	Met	Lys	Cys	Ser
	210					215					220				
Ser	Met	Gln	Lys	Phe	Gly	Glu	Arg	Ala	Phe	Lys	Ala	Trp	Ala	Val	Ala
225					230					235					240
Arg	Leu	Ser	Gln	Thr	Phe	Pro	Asn	Ala	Asp	Phe	Ala	Glu	Ile	Thr	Lys
				245					250					255	
Leu	Ala	Thr	Asp	Leu	Thr	Lys	Val	Asn	Lys	Glu	Cys	Cys	His	Gly	Asp
			260					265					270		
Leu	Leu	Glu	Cys	Ala	Asp	Asp	Arg	Ala	Glu	Leu	Ala	Lys	Tyr	Met	Cys
		275					280					285			
Glu	Asn	Gln	Ala	Thr	Ile	Ser	Ser	Lys	Leu	Gln	Thr	Cys	Cys	Asp	Lys
	290					295					300				
Pro	Leu	Leu	Lys	Lys	Ala	His	Cys	Leu	Ser	Glu	Val	Glu	His	Asp	Thr
305					310					315					320
Met	Pro	Ala	Asp	Leu	Pro	Ala	Ile	Ala	Ala	Asp	Phe	Val	Glu	Asp	Gln
				325					330					335	
Glu	Val	Cys	Lys	Asn	Tyr	Ala	Glu	Ala	Lys	Asp	Val	Phe	Leu	Gly	Thr
			340					345					350		
Phe	Leu	Tyr	Glu	Tyr	Ser	Arg	Arg	His	Pro	Asp	Tyr	Ser	Val	Ser	Leu
	355						360					365			
Leu	Leu	Arg	Leu	Ala	Lys	Lys	Tyr	Glu	Ala	Thr	Leu	Glu	Lys	Cys	Cys
	370					375					380				
Ala	Glu	Ala	Asn	Pro	Pro	Ala	Cys	Tyr	Gly	Thr	Val	Leu	Ala	Glu	Phe
385					390					395					400
Gln	Pro	Leu	Val	Glu	Glu	Pro	Lys	Asn	Leu	Val	Lys	Thr	Asn	Cys	Asp
				405					410					415	
Leu	Tyr	Glu	Lys	Leu	Gly	Glu	Tyr	Gly	Phe	Gln	Asn	Ala	Ile	Leu	Val
			420					425					430		
Arg	Tyr	Thr	Gln	Lys	Ala	Pro	Gln	Val	Ser	Thr	Pro	Thr	Leu	Val	Glu
		435					440						445		

Ala Ala Arg Asn Leu Gly Arg Val Gly Thr Lys Cys Cys Thr Leu Pro
450 455 460

Glu Asp Gln Arg Leu Pro Cys Val Glu Asp Tyr Leu Ser Ala Ile Leu
465 470 475 480

Asn Arg Val Cys Leu Leu His Glu Lys Thr Pro Val Ser Glu His Val
485 490 495

Thr Lys Cys Cys Ser Gly Ser Leu Val Glu Arg Arg Pro Cys Phe Ser
500 505 510

Ala Leu Thr Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Lys Ala Glu
515 520 525

Thr Phe Thr Phe His Ser Asp Ile Cys Thr Leu Pro Glu Lys Glu Lys
530 535 540

Gln Ile Lys Lys Gln Thr Ala Leu Ala Glu Leu Val Lys His Lys Pro
545 550 555 560

Lys Ala Thr Ala Glu Gln Leu Lys Thr Val Met Asp Asp Phe Ala Gln
565 570 575

Phe Leu Asp Thr Cys Cys Lys Ala Ala Asp Lys Asp Thr Cys Phe Ser
580 585 590

Thr Glu Gly Pro Asn Leu Val Thr Arg Cys Lys Asp Ala Leu Ala
595 600 605

<210> 56
<211> 608
<212> PRT
<213> Rattus norvegicus

<400> 56

Met Lys Trp Val Thr Phe Leu Leu Leu Leu Phe Ile Ser Gly Ser Ala
1 5 10 15

Phe Ser Arg Gly Val Phe Arg Arg Glu Ala His Lys Ser Glu Ile Ala
20 25 30

His Arg Phe Lys Asp Leu Gly Glu Gln His Phe Lys Gly Leu Val Leu
35 40 45

Ile Ala Phe Ser Gln Tyr Leu Gln Lys Cys Pro Tyr Glu Glu His Ile
50 55 60

Lys Leu Val Gln Glu Val Thr Asp Phe Ala Lys Thr Cys Val Ala Asp
65 70 75 80

Glu Asn Ala Glu Asn Cys Asp Lys Ser Ile His Thr Leu Phe Gly Asp
85 90 95

Lys Leu Cys Ala Ile Pro Lys Leu Arg Asp Asn Tyr Gly Glu Leu Ala
100 105 110

Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
115 120 125

His Lys Asp Asp Asn Pro Asn Leu Pro Pro Phe Gln Arg Pro Glu Ala
130 135 140

Glu Ala Met Cys Thr Ser Phe Gln Glu Asn Pro Thr Ser Phe Leu Gly
145 150 155 160

His Tyr Leu His Glu Val Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro
165 170 175

Glu Leu Leu Tyr Tyr Ala Glu Lys Tyr Asn Glu Val Leu Thr Gln Cys
180 185 190

Cys Thr Glu Ser Asp Lys Ala Ala Cys Leu Thr Pro Lys Leu Asp Ala
195 200 205

Val Lys Glu Lys Ala Leu Val Ala Ala Val Arg Gln Arg Met Lys Cys
210 215 220

Ser Ser Met Gln Arg Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val
225 230 235 240

Ala Arg Met Ser Gln Arg Phe Pro Asn Ala Glu Phe Ala Glu Ile Thr
245 250 255

Lys Leu Ala Thr Asp Leu Thr Lys Ile Asn Lys Glu Cys Cys His Gly
260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Glu Leu Ala Lys Tyr Met
275 280 285

Cys Glu Asn Gln Ala Thr Ile Ser Ser Lys Leu Gln Ala Cys Cys Asp
290 295 300

Lys Pro Val Leu Gln Lys Ser Gln Cys Leu Ala Glu Ile Glu His Asp

305		310		315		320
Asn Ile Pro Ala Asp Leu Pro Ser Ile Ala Ala Asp Phe Val Glu Asp						
		325		330		335
Lys Glu Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly						
		340		345		350
Thr Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Asp Tyr Ser Val Ser						
		355		360		365
Leu Leu Leu Arg Leu Ala Lys Lys Tyr Glu Ala Thr Leu Glu Lys Cys						
		370		375		380
Cys Ala Glu Gly Asp Pro Pro Ala Cys Tyr Gly Thr Val Leu Ala Glu						
		385		390		400
Phe Gln Pro Leu Val Glu Glu Pro Lys Asn Leu Val Lys Thr Asn Cys						
		405		410		415
Glu Leu Tyr Glu Lys Leu Gly Glu Tyr Gly Phe Gln Asn Ala Ile Leu						
		420		425		430
Val Arg Tyr Thr Gln Lys Ala Pro Gln Val Ser Thr Pro Thr Leu Val						
		435		440		445
Glu Ala Ala Arg Asn Leu Gly Arg Val Gly Thr Lys Cys Cys Thr Leu						
		450		455		460
Pro Glu Ala Gln Arg Leu Pro Cys Val Glu Asp Tyr Leu Ser Ala Ile						
		465		470		475
Leu Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Lys						
		485		490		495
Val Thr Lys Cys Cys Ser Gly Ser Leu Val Glu Arg Arg Pro Cys Phe						
		500		505		510
Ser Ala Leu Thr Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Lys Ala						
		515		520		525
Glu Thr Phe Thr Phe His Ser Asp Ile Cys Thr Leu Pro Asp Lys Glu						
		530		535		540
Lys Gln Ile Lys Lys Gln Thr Ala Leu Ala Glu Leu Val Lys His Lys						
		545		550		555
						560

Leu Leu Tyr Tyr Ala Asn Lys Tyr Asn Gly Val Phe Gln Glu Cys Cys
 180 185 190

Gln Ala Glu Asp Lys Gly Ala Cys Leu Leu Pro Lys Ile Glu Thr Met
 195 200 205

Arg Glu Lys Val Leu Thr Ser Ser Ala Arg Gln Arg Leu Arg Cys Ala
 210 215 220

Ser Ile Gln Lys Phe Gly Glu Arg Ala Leu Lys Ala Trp Ser Val Ala
 225 230 235 240

Arg Leu Ser Gln Lys Phe Pro Lys Ala Glu Phe Val Glu Val Thr Lys
 245 250 255

Leu Val Thr Asp Leu Thr Lys Val His Lys Glu Cys Cys His Gly Asp
 260 265 270

Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys
 275 280 285

Asp Asn Gln Asp Thr Ile Ser Ser Lys Leu Lys Glu Cys Cys Asp Lys
 290 295 300

Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Lys Asp Ala
 305 310 315 320

Ile Pro Glu Asn Leu Pro Pro Leu Thr Ala Asp Phe Ala Glu Asp Lys
 325 330 335

Asp Val Cys Lys Asn Tyr Gln Glu Ala Lys Asp Ala Phe Leu Gly Ser
 340 345 350

Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Glu Tyr Ala Val Ser Val
 355 360 365

Leu Leu Arg Leu Ala Lys Glu Tyr Glu Ala Thr Leu Glu Glu Cys Cys
 370 375 380

Ala Lys Asp Asp Pro His Ala Cys Tyr Ser Thr Val Phe Asp Lys Leu
 385 390 395 400

Lys His Leu Val Asp Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Asp
 405 410 415

Gln Phe Glu Lys Leu Gly Glu Tyr Gly Phe Gln Asn Ala Leu Ile Val
 420 425 430

Arg Tyr Thr Arg Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu
435 440 445

Val Ser Arg Ser Leu Gly Lys Val Gly Thr Arg Cys Cys Thr Lys Pro
450 455 460

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

Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Lys Val
485 490 495

Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser
500 505 510

Ala Leu Thr Pro Asp Glu Thr Tyr Val Pro Lys Ala Phe Asp Glu Lys
515 520 525

Leu Phe Thr Phe His Ala Asp Ile Cys Thr Leu Pro Asp Thr Glu Lys
530 535 540

Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Leu Lys His Lys Pro
545 550 555 560

Lys Ala Thr Glu Glu Gln Leu Lys Thr Val Met Glu Asn Phe Val Ala
565 570 575

Phe Val Asp Lys Cys Cys Ala Ala Asp Asp Lys Glu Ala Cys Phe Ala
580 585 590

Val Glu Gly Pro Lys Leu Val Val Ser Thr Gln Thr Ala Leu Ala
595 600 605

<210> 58
<211> 607
<212> PRT
<213> Sus scrofa

<400> 58

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1 5 10 15

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

His Arg Phe Lys Asp Leu Gly Glu Gln Tyr Phe Lys Gly Leu Val Leu
35 40 45

Ile Ala Phe Ser Gln His Leu Gln Gln Cys Pro Tyr Glu Glu His Val
50 55 60

Lys Leu Val Arg Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Ile His Thr Leu Phe Gly Asp
85 90 95

Lys Leu Cys Ala Ile Pro Ser Leu Arg Glu His Tyr Gly Asp Leu Ala
100 105 110

Asp Cys Cys Glu Lys Glu Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
115 120 125

His Lys Asn Asp Asn Pro Asp Ile Pro Lys Leu Lys Pro Asp Pro Val
130 135 140

Ala Leu Cys Ala Asp Phe Gln Glu Asp Glu Gln Lys Phe Trp Gly Lys
145 150 155 160

Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu
165 170 175

Leu Leu Tyr Tyr Ala Ile Ile Tyr Lys Asp Val Phe Ser Glu Cys Cys
180 185 190

Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Ile Glu His Leu
195 200 205

Arg Glu Lys Val Leu Thr Ser Ala Ala Lys Gln Arg Leu Lys Cys Ala
210 215 220

Ser Ile Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ser Leu Ala
225 230 235 240

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

Ile Val Thr Asp Leu Ala Lys Val His Lys Glu Cys Cys His Gly Asp
260 265 270

Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys
275 280 285

Glu Asn Gln Asp Thr Ile Ser Thr Lys Leu Lys Glu Cys Cys Asp Lys
290 295 300

Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Ala Lys Arg Asp Glu
305 310 315 320

Leu Pro Ala Asp Leu Asn Pro Leu Glu His Asp Phe Val Glu Asp Lys
325 330 335

Glu Val Cys Lys Asn Tyr Lys Glu Ala Lys His Val Phe Leu Gly Thr
340 345 350

Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Asp Tyr Ser Val Ser Leu
355 360 365

Leu Leu Arg Ile Ala Lys Ile Tyr Glu Ala Thr Leu Glu Asp Cys Cys
370 375 380

Ala Lys Glu Asp Pro Pro Ala Cys Tyr Ala Thr Val Phe Asp Lys Phe
385 390 395 400

Gln Pro Leu Val Asp Glu Pro Lys Asn Leu Ile Lys Gln Asn Cys Glu
405 410 415

Leu Phe Glu Lys Leu Gly Glu Tyr Gly Phe Gln Asn Ala Leu Ile Val
420 425 430

Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu
435 440 445

Val Ala Arg Lys Leu Gly Leu Val Gly Ser Arg Cys Cys Lys Arg Pro
450 455 460

Glu Glu Glu Arg Leu Ser Cys Ala Glu Asp Tyr Leu Ser Leu Val Leu
465 470 475 480

Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Lys Val
485 490 495

Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser
500 505 510

Ala Leu Thr Pro Asp Glu Thr Tyr Lys Pro Lys Glu Phe Val Glu Gly
515 520 525

Thr Phe Thr Phe His Ala Asp Leu Cys Thr Leu Pro Glu Asp Glu Lys
530 535 540

Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Leu Lys His Lys Pro

Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro

165

170

175

Glu Leu Leu Tyr Tyr Ala Gln Gln Tyr Lys Gly Val Phe Ala Glu Cys
 180 185 190

Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Gly Pro Lys Ile Glu Ala
 195 200 205

Leu Arg Glu Lys Val Leu Leu Ser Ser Ala Lys Glu Arg Phe Lys Cys
 210 215 220

Ala Ser Leu Gln Lys Phe Gly Asp Arg Ala Phe Lys Ala Trp Ser Val
 225 230 235 240

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

Lys Val Val Thr Asp Leu Thr Lys Val His Lys Glu Cys Cys His Gly
 260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Met
 275 280 285

Cys Glu Asn Gln Asp Ser Ile Ser Thr Lys Leu Lys Glu Cys Cys Asp
 290 295 300

Lys Pro Val Leu Glu Lys Ser Gln Cys Leu Ala Glu Val Glu Arg Asp
 305 310 315 320

Glu Leu Pro Gly Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Asp
 325 330 335

Lys Glu Val Cys Lys Asn Tyr Gln Glu Ala Lys Asp Val Phe Leu Gly
 340 345 350

Thr Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Glu Tyr Ser Val Ser
 355 360 365

Leu Leu Leu Arg Leu Ala Lys Glu Tyr Glu Ala Thr Leu Glu Lys Cys
 370 375 380

Cys Ala Thr Asp Asp Pro Pro Thr Cys Tyr Ala Lys Val Leu Asp Glu
 385 390 395 400

Phe Lys Pro Leu Val Asp Glu Pro Gln Asn Leu Val Lys Thr Asn Cys
 405 410 415

Glu Leu Phe Glu Lys Leu Gly Glu Tyr Gly Phe Gln Asn Ala Leu Leu
420 425 430

Val Arg Tyr Thr Lys Lys Ala Pro Gln Val Ser Thr Pro Thr Leu Val
435 440 445

Glu Val Ser Arg Lys Leu Gly Lys Val Gly Thr Lys Cys Cys Lys Lys
450 455 460

Pro Glu Ser Glu Arg Met Ser Cys Ala Glu Asp Phe Leu Ser Val Val
465 470 475 480

Leu Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Arg
485 490 495

Val Thr Lys Cys Cys Ser Glu Ser Leu Val Asn Arg Arg Pro Cys Phe
500 505 510

Ser Gly Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala
515 520 525

Glu Thr Phe Thr Phe His Ala Asp Leu Cys Thr Leu Pro Glu Ala Glu
530 535 540

Lys Gln Val Lys Lys Gln Thr Ala Leu Val Glu Leu Leu Lys His Lys
545 550 555 560

Pro Lys Ala Thr Asp Glu Gln Leu Lys Thr Val Met Gly Asp Phe Gly
565 570 575

Ala Phe Val Glu Lys Cys Cys Ala Ala Glu Asn Lys Glu Gly Cys Phe
580 585 590

Ser Glu Glu Gly Pro Lys Leu Val Ala Ala Ala Gln Ala Ala Leu Val
595 600 605

<210> 60
<211> 608
<212> PRT
<213> Felis catus

<400> 60

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Leu Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser Arg Gly Val Thr Arg Arg Glu Ala His Gln Ser Glu Ile Ala
20 25 30

His	Arg	Phe	Asn	Asp	Leu	Gly	Glu	Glu	His	Phe	Arg	Gly	Leu	Val	Leu		
		35					40					45					
Val	Ala	Phe	Ser	Gln	Tyr	Leu	Gln	Gln	Cys	Pro	Phe	Glu	Asp	His	Val		
	50					55					60						
Lys	Leu	Val	Asn	Glu	Val	Thr	Glu	Phe	Ala	Lys	Gly	Cys	Val	Ala	Asp		
65					70					75					80		
Gln	Ser	Ala	Ala	Asn	Cys	Glu	Lys	Ser	Leu	His	Glu	Leu	Leu	Gly	Asp		
				85					90					95			
Lys	Leu	Cys	Thr	Val	Ala	Ser	Leu	Arg	Asp	Lys	Tyr	Gly	Glu	Met	Ala		
			100					105						110			
Asp	Cys	Cys	Glu	Lys	Lys	Glu	Pro	Glu	Arg	Asn	Glu	Cys	Phe	Leu	Gln		
		115					120					125					
His	Lys	Asp	Asp	Asn	Pro	Gly	Phe	Gly	Gln	Leu	Val	Thr	Pro	Glu	Ala		
	130					135					140						
Asp	Ala	Met	Cys	Thr	Ala	Phe	His	Glu	Asn	Glu	Gln	Arg	Phe	Leu	Gly		
145					150					155					160		
Lys	Tyr	Leu	Tyr	Glu	Ile	Ala	Arg	Arg	His	Pro	Tyr	Phe	Tyr	Ala	Pro		
				165					170					175			
Glu	Leu	Leu	Tyr	Tyr	Ala	Glu	Glu	Tyr	Lys	Gly	Val	Phe	Thr	Glu	Cys		
			180					185					190				
Cys	Glu	Ala	Ala	Asp	Lys	Ala	Ala	Cys	Leu	Thr	Pro	Lys	Val	Asp	Ala		
		195					200					205					
Leu	Arg	Glu	Lys	Val	Leu	Ala	Ser	Ser	Ala	Lys	Glu	Arg	Leu	Lys	Cys		
	210					215					220						
Ala	Ser	Leu	Gln	Lys	Phe	Gly	Glu	Arg	Ala	Phe	Lys	Ala	Trp	Ser	Val		
225					230					235					240		
Ala	Arg	Leu	Ser	Gln	Lys	Phe	Pro	Lys	Ala	Glu	Phe	Ala	Glu	Ile	Ser		
				245					250					255			
Lys	Leu	Val	Thr	Asp	Leu	Ala	Lys	Ile	His	Lys	Glu	Cys	Cys	His	Gly		
			260					265					270				
Asp	Leu	Leu	Glu	Cys	Ala	Asp	Asp	Arg	Ala	Asp	Leu	Ala	Lys	Tyr	Ile		
	275						280					285					

Cys Glu Asn Gln Asp Ser Ile Ser Thr Lys Leu Lys Glu Cys Cys Gly
 290 295 300
 Lys Pro Val Leu Glu Lys Ser His Cys Ile Ser Glu Val Glu Arg Asp
 305 310 315 320
 Glu Leu Pro Ala Asp Leu Pro Pro Leu Ala Val Asp Phe Val Glu Asp
 325 330 335
 Lys Glu Val Cys Lys Asn Tyr Gln Glu Ala Lys Asp Val Phe Leu Gly
 340 345 350
 Thr Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Glu Tyr Ser Val Ser
 355 360 365
 Leu Leu Leu Arg Leu Ala Lys Glu Tyr Glu Ala Thr Leu Glu Lys Cys
 370 375 380
 Cys Ala Thr Asp Asp Pro Pro Ala Cys Tyr Ala His Val Phe Asp Glu
 385 390 395 400
 Phe Lys Pro Leu Val Glu Glu Pro His Asn Leu Val Lys Thr Asn Cys
 405 410 415
 Glu Leu Phe Glu Lys Leu Gly Glu Tyr Gly Phe Gln Asn Ala Leu Leu
 420 425 430
 Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val
 435 440 445
 Glu Val Ser Arg Ser Leu Gly Lys Val Gly Ser Lys Cys Cys Thr His
 450 455 460
 Pro Glu Ala Glu Arg Leu Ser Cys Ala Glu Asp Tyr Leu Ser Val Val
 465 470 475 480
 Leu Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Arg
 485 490 495
 Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe
 500 505 510
 Ser Ala Leu Gln Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Ser Ala
 515 520 525
 Glu Thr Phe Thr Phe His Ala Asp Leu Cys Thr Leu Pro Glu Ala Glu
 530 535 540

Lys Gln Ile Lys Lys Gln Ser Ala Leu Val Glu Leu Leu Lys His Lys
545 550 555 560

Pro Lys Ala Thr Glu Glu Gln Leu Lys Thr Val Met Gly Asp Phe Gly
565 570 575

Ser Phe Val Asp Lys Cys Cys Ala Ala Glu Asp Lys Glu Ala Cys Phe
580 585 590

Ala Glu Glu Gly Pro Lys Leu Val Ala Ala Ala Gln Ala Ala Leu Ala
595 600 605

<210> 61
<211> 607
<212> PRT
<213> Ovis aries

<400> 61

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Asp Thr His Lys Ser Glu Ile Ala
20 25 30

His Arg Phe Asn Asp Leu Gly Glu Glu Asn Phe Gln Gly Leu Val Leu
35 40 45

Ile Ala Phe Ser Gln Tyr Leu Gln Gln Cys Pro Phe Asp Glu His Val
50 55 60

Lys Leu Val Lys Glu Leu Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65 70 75 80

Glu Ser His Ala Gly Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp
85 90 95

Glu Leu Cys Lys Val Ala Thr Leu Arg Glu Thr Tyr Gly Asp Met Ala
100 105 110

Asp Cys Cys Glu Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Asn
115 120 125

His Lys Asp Asp Ser Pro Asp Leu Pro Lys Leu Lys Pro Glu Pro Asp
130 135 140

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

Tyr Leu Tyr Glu Val Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu
 165 170 175

Leu Leu Tyr Tyr Ala Asn Lys Tyr Asn Gly Val Phe Gln Glu Cys Cys
 180 185 190

Gln Ala Glu Asp Lys Gly Ala Cys Leu Leu Pro Lys Ile Asp Ala Met
 195 200 205

Arg Glu Lys Val Leu Ala Ser Ser Ala Arg Gln Arg Leu Arg Cys Ala
 210 215 220

Ser Ile Gln Lys Phe Gly Glu Arg Ala Leu Lys Ala Trp Ser Val Ala
 225 230 235 240

Arg Leu Ser Gln Lys Phe Pro Lys Ala Asp Phe Thr Asp Val Thr Lys
 245 250 255

Ile Val Thr Asp Leu Thr Lys Val His Lys Glu Cys Cys His Gly Asp
 260 265 270

Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys
 275 280 285

Asp His Gln Asp Ala Leu Ser Ser Lys Leu Lys Glu Cys Cys Asp Lys
 290 295 300

Pro Val Leu Glu Lys Ser His Cys Ile Ala Glu Val Asp Lys Asp Ala
 305 310 315 320

Val Pro Glu Asn Leu Pro Pro Leu Thr Ala Asp Phe Ala Glu Asp Lys
 325 330 335

Glu Val Cys Lys Asn Tyr Gln Glu Ala Lys Asp Val Phe Leu Gly Ser
 340 345 350

Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Glu Tyr Ala Val Ser Val
 355 360 365

Leu Leu Arg Leu Ala Lys Glu Tyr Glu Ala Thr Leu Glu Asp Cys Cys
 370 375 380

Ala Lys Glu Asp Pro His Ala Cys Tyr Ala Thr Val Phe Asp Lys Leu
 385 390 395 400

Lys His Leu Val Asp Glu Pro Gln Asn Leu Ile Lys Lys Asn Cys Glu

405	410	415
Leu Phe Glu Lys His Gly Glu Tyr Gly Phe Gln Asn Ala Leu Ile Val		
420	425	430
Arg Tyr Thr Arg Lys Ala Pro Gln Val Ser Thr Pro Thr Leu Val Glu		
435	440	445
Ile Ser Arg Ser Leu Gly Lys Val Gly Thr Lys Cys Cys Ala Lys Pro		
450	455	460
Glu Ser Glu Arg Met Pro Cys Thr Glu Asp Tyr Leu Ser Leu Ile Leu		
465	470	475
Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Lys Val		
485	490	495
Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser		
500	505	510
Asp Leu Thr Leu Asp Glu Thr Tyr Val Pro Lys Pro Phe Asp Glu Lys		
515	520	525
Phe Phe Thr Phe His Ala Asp Ile Cys Thr Leu Pro Asp Thr Glu Lys		
530	535	540
Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Leu Lys His Lys Pro		
545	550	555
Lys Ala Thr Asp Glu Gln Leu Lys Thr Val Met Glu Asn Phe Val Ala		
565	570	575
Phe Val Asp Lys Cys Cys Ala Ala Asp Asp Lys Glu Gly Cys Phe Val		
580	585	590
Leu Glu Gly Pro Lys Leu Val Ala Ser Thr Gln Ala Ala Leu Ala		
595	600	605
<210> 62		
<211> 607		
<212> PRT		
<213> Equus caballus		
<400> 62		
Met Lys Trp Val Thr Phe Val Ser Leu Leu Phe Leu Phe Ser Ser Ala		
1	5	10
		15
Tyr Ser Arg Gly Val Leu Arg Arg Asp Thr His Lys Ser Glu Ile Ala		

20

25

30

His Arg Phe Asn Asp Leu Gly Glu Lys His Phe Lys Gly Leu Val Leu
 35 40 45

Val Ala Phe Ser Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
 50 55 60

Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Lys Cys Ala Ala Asp
 65 70 75 80

Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp
 85 90 95

Lys Leu Cys Thr Val Ala Thr Leu Arg Ala Thr Tyr Gly Glu Leu Ala
 100 105 110

Asp Cys Cys Glu Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Thr
 115 120 125

His Lys Asp Asp His Pro Asn Leu Pro Lys Leu Lys Pro Glu Pro Asp
 130 135 140

Ala Gln Cys Ala Ala Phe Gln Glu Asp Pro Asp Lys Phe Leu Gly Lys
 145 150 155 160

Tyr Leu Tyr Glu Val Ala Arg Arg His Pro Tyr Phe Tyr Gly Pro Glu
 165 170 175

Leu Leu Phe His Ala Glu Glu Tyr Lys Ala Asp Phe Thr Glu Cys Cys
 180 185 190

Pro Ala Asp Asp Lys Leu Ala Cys Leu Ile Pro Lys Leu Asp Ala Leu
 195 200 205

Lys Glu Arg Ile Leu Leu Ser Ser Ala Lys Glu Arg Leu Lys Cys Ser
 210 215 220

Ser Phe Gln Asn Phe Gly Glu Arg Ala Val Lys Ala Trp Ser Val Ala
 225 230 235 240

Arg Leu Ser Gln Lys Phe Pro Lys Ala Asp Phe Ala Glu Val Ser Lys
 245 250 255

Ile Val Thr Asp Leu Thr Lys Val His Lys Glu Cys Cys His Gly Asp
 260 265 270

Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys
 275 280 285

Glu His Gln Asp Ser Ile Ser Gly Lys Leu Lys Ala Cys Cys Asp Lys
 290 295 300

Pro Leu Leu Gln Lys Ser His Cys Ile Ala Glu Val Lys Glu Asp Asp
 305 310 315 320

Leu Pro Ser Asp Leu Pro Ala Leu Ala Ala Asp Phe Ala Glu Asp Lys
 325 330 335

Glu Ile Cys Lys His Tyr Lys Asp Ala Lys Asp Val Phe Leu Gly Thr
 340 345 350

Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Asp Tyr Ser Val Ser Leu
 355 360 365

Leu Leu Arg Ile Ala Lys Thr Tyr Glu Ala Thr Leu Glu Lys Cys Cys
 370 375 380

Ala Glu Ala Asp Pro Pro Ala Cys Tyr Arg Thr Val Phe Asp Gln Phe
 385 390 395 400

Thr Pro Leu Val Glu Glu Pro Lys Ser Leu Val Lys Lys Asn Cys Asp
 405 410 415

Leu Phe Glu Glu Val Gly Glu Tyr Asp Phe Gln Asn Ala Leu Ile Val
 420 425 430

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

Ile Gly Arg Thr Leu Gly Lys Val Gly Ser Arg Cys Cys Lys Leu Pro
 450 455 460

Glu Ser Glu Arg Leu Pro Cys Ser Glu Asn His Leu Ala Leu Ala Leu
 465 470 475 480

Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Lys Ile
 485 490 495

Thr Lys Cys Cys Thr Asp Ser Leu Ala Glu Arg Arg Pro Cys Phe Ser
 500 505 510

Ala Leu Glu Leu Asp Glu Gly Tyr Val Pro Lys Glu Phe Lys Ala Glu
 515 520 525

Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Pro Glu Asp Glu Lys
530 535 540

Gln Ile Lys Lys Gln Ser Ala Leu Ala Glu Leu Val Lys His Lys Pro
545 550 555 560

Lys Ala Thr Lys Glu Gln Leu Lys Thr Val Leu Gly Asn Phe Ser Ala
565 570 575

Phe Val Ala Lys Cys Cys Gly Arg Glu Asp Lys Glu Ala Cys Phe Ala
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Glu Glu Gly Pro Lys Leu Val Ala Ser Ser Gln Leu Ala Leu Ala
595 600 605

<210> 63
<211> 608
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<213> Oryctolagus cuniculus

<400> 63

Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1 5 10 15

Tyr Ser Arg Gly Val Phe Arg Arg Glu Ala His Lys Ser Glu Ile Ala
20 25 30

His Arg Phe Asn Asp Val Gly Glu Glu His Phe Ile Gly Leu Val Leu
35 40 45

Ile Thr Phe Ser Gln Tyr Leu Gln Lys Cys Pro Tyr Glu Glu His Ala
50 55 60

Lys Leu Val Lys Glu Val Thr Asp Leu Ala Lys Ala Cys Val Ala Asp
65 70 75 80

Glu Ser Ala Ala Asn Cys Asp Lys Ser Leu His Asp Ile Phe Gly Asp
85 90 95

Lys Ile Cys Ala Leu Pro Ser Leu Arg Asp Thr Tyr Gly Asp Val Ala
100 105 110

Asp Cys Cys Glu Lys Lys Glu Pro Glu Arg Asn Glu Cys Phe Leu His
115 120 125

His Lys Asp Asp Lys Pro Asp Leu Pro Pro Phe Ala Arg Pro Glu Ala
130 135 140

Asp Val Leu Cys Lys Ala Phe His Asp Asp Glu Lys Ala Phe Phe Gly
 145 150 155 160

His Tyr Leu Tyr Glu Val Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro
 165 170 175

Glu Leu Leu Tyr Tyr Ala Gln Lys Tyr Lys Ala Ile Leu Thr Glu Cys
 180 185 190

Cys Glu Ala Ala Asp Lys Gly Ala Cys Leu Thr Pro Lys Leu Asp Ala
 195 200 205

Leu Glu Gly Lys Ser Leu Ile Ser Ala Ala Gln Glu Arg Leu Arg Cys
 210 215 220

Ala Ser Ile Gln Lys Phe Gly Asp Arg Ala Tyr Lys Ala Trp Ala Leu
 225 230 235 240

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

Lys Ile Val Thr Asp Leu Thr Lys Val His Lys Glu Cys Cys His Gly
 260 265 270

Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Met
 275 280 285

Cys Glu His Gln Glu Thr Ile Ser Ser His Leu Lys Glu Cys Cys Asp
 290 295 300

Lys Pro Ile Leu Glu Lys Ala His Cys Ile Tyr Gly Leu His Asn Asp
 305 310 315 320

Glu Thr Pro Ala Gly Leu Pro Ala Val Ala Glu Glu Phe Val Glu Asp
 325 330 335

Lys Asp Val Cys Lys Asn Tyr Glu Glu Ala Lys Asp Leu Phe Leu Gly
 340 345 350

Lys Phe Leu Tyr Glu Tyr Ser Arg Arg His Pro Asp Tyr Ser Val Val
 355 360 365

Leu Leu Leu Arg Leu Gly Lys Ala Tyr Glu Ala Thr Leu Lys Lys Cys
 370 375 380

Cys Ala Thr Asp Asp Pro His Ala Cys Tyr Ala Lys Val Leu Asp Glu
 385 390 395 400

Phe Gln Pro Leu Val Asp Glu Pro Lys Asn Leu Val Lys Gln Asn Cys
405 410 415

Glu Leu Tyr Glu Gln Leu Gly Asp Tyr Asn Phe Gln Asn Ala Leu Leu
420 425 430

Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val
435 440 445

Glu Ile Ser Arg Ser Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His
450 455 460

Pro Glu Ala Glu Arg Leu Pro Cys Val Glu Asp Tyr Leu Ser Val Val
465 470 475 480

Leu Asn Arg Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Glu Lys
485 490 495

Val Thr Lys Cys Cys Ser Glu Ser Leu Val Asp Arg Arg Pro Cys Phe
500 505 510

Ser Ala Leu Gly Pro Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala
515 520 525

Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Pro Glu Thr Glu
530 535 540

Arg Lys Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys
545 550 555 560

Pro His Ala Thr Asn Asp Gln Leu Lys Thr Val Val Gly Glu Phe Thr
565 570 575

Ala Leu Leu Asp Lys Cys Cys Ser Ala Glu Asp Lys Glu Ala Cys Phe
580 585 590

Ala Val Glu Gly Pro Lys Leu Val Glu Ser Ser Lys Ala Thr Leu Gly
595 600 605