

eolf-seql 4
SEQUENCE LISTING

<110> Ablynx NV

<120> T - Cell recruiting polypeptides capable of binding CD123 and TCR
alpha/beta

<130> P16-014-PCT-1

<150> US 62/422,770

<151> 2016-11-16

<150> US62/557,208

<151> 2017-09-12

<160> 370

<170> PatentIn version 3.5

<210> 1

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eolf-seql 4

<400> 1

Glu Val Gln Leu Val Lys 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 Ser Lys Ile Asn
20 25 30

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val
35 40 45

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

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

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

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Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

100

105

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Val Ser Ser

115

<210> 2

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

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Ser Leu Arg Leu Ser Cys Ala Ala Asn Gly Ile Ser Ser Lys Ser Asp

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30

eolf-seql 4

Ala Met Gly Trp Tyr Arg Gln Thr Pro Gly Lys Tyr Arg Glu Trp Val

35

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45

Ala Ser Ile Thr Ala Thr Gly Thr Thr Asn Tyr Arg 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 Thr Val Tyr Tyr Cys Asn

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Thr Phe Pro Ala Ile Ser Asn Phe Trp Gly Gln Gly Thr Gln Val Thr

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Val Ser Ser

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eolf-seql 4

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<400> 3

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 Asn Gly Ile Thr Ser Lys Ser Asn
20 25 30

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

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

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

eolf-seql 4
10

1

5

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Pro Ser Lys Ile Asn
20 25 30

Asp Met Gly Trp Phe Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val
35 40 45

Ala Ser Ile Thr Ala Thr Gly Thr Thr Asn Tyr Arg 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 Thr Val Tyr Tyr Cys Asn
85 90 95

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

eolf-seql 4

Val Ser Ser

115

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<400> 5

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 Ser Lys Ile Asn

20 25 30

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val

35 40 45

eolf-seql 4

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

50

55

60

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

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn

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Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

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Val Ser Ser

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<400> 6

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 Ser Lys Ser Asn
20 25 30

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

Ala Ser Ile Thr Ala Thr Gly Thr Thr Asn Tyr Arg 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 Thr Val Tyr Tyr Cys Asn

85 eolf-seql 4 95
90

Thr Phe Pro Ala Ile Ser Asn Phe Trp Gly Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

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<400> 7

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

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

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25

30

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

35

40

45

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

50

55

60

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

65

70

75

80

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85

90

95

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

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105

110

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

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125

eolf-seql 4

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

1 5 10 15

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

20 25 30

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

35 40 45

Ala Ala Ile Tyr Trp Ser Ser Gly Lys Thr Glu Tyr Thr Asp Ser Val

50 55 60

eolf-seql 4

Lys Gly Arg Phe Thr Leu Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr

65 70 75 80

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Val Ala Asp Lys Asp Arg Asp Gly Phe Arg Thr Leu Pro Ile Ala Tyr

100 105 110

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

115 120 125

<210> 9

<211> 125

<212> PRT

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<400> 9

eolf-seql 4

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

1 5 10 15

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

20 25 30

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

35 40 45

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

50 55 60

Lys Gly Arg Phe Thr Leu Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr

65 70 75 80

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Val Ala Asp Lys Asp Arg Tyr Gly Phe Arg Thr Leu Pro Ile Ala Tyr

100 eolf-seql 4 105 110

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

<210> 10

<211> 125

<212> PRT

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<220>

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<400> 10

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

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

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

eolf-seql 4

35 40 45

Ala Ala Ile Trp Trp Ser Ser Gly Lys Thr Glu Tyr Thr Asp Ser Val

50 55 60

Lys Gly Arg Phe Thr Leu Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr

65 70 75 80

Leu Gln Met Asn Asn Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Val Ala Asp Lys Asp Arg Asp Gly Phe Arg Thr Leu Pro Ile Ala Tyr

100 105 110

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

115 120 125

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eolf-seql 4

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Gly Ile Thr Ser Lys Ile Asn Asp Met Gly

1 5 10

<210> 12

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<223> CDR1

<400> 12

Gly Ile Ser Ser Lys Ser Asp Ala Met Gly

1 5 10

<210> 13

eolf-seql 4

<211> 10

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<400> 13

Gly Ile Thr Ser Lys Ser Asn Ala Met Gly

1 5 10

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<211> 10

<212> PRT

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<223> CDR1

<400> 14

Gly Ile Pro Ser Lys Ile Asn Asp Met Gly

1 5 10

eolf-seql 4

<210> 15

<211> 10

<212> PRT

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<220>

<223> CDR1

<400> 15

Gly Ile Thr Ser Lys Ser Asn Val Met Gly

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<210> 16

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR1

<400> 16

Gly Arg Thr Phe Ser Ser Tyr Val Met Gly

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<213> Artificial Sequence

<220>

<223> CDR2

<400> 17

Ser Ile Thr Ala Thr Gly Thr Thr Asn

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<210> 18

<211> 10

<212> PRT

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<400> 18

eolf-seql 4

Ala Ile Tyr Trp Ser Asn Gly Lys Thr Gln

1 5 10

<210> 19

<211> 10

<212> PRT

<213> Artificial Sequence

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<223> CDR2

<400> 19

Ala Ile Tyr Trp Ser Ser Gly Lys Thr Glu

1 5 10

<210> 20

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR2

eolf-seql 4

<400> 20

Ala Ile Trp Trp Ser Ser Gly Lys Thr Glu

1 5 10

<210> 21

<211> 7

<212> PRT

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<223> CDR3

<400> 21

Phe Pro Pro Ile Ser Asn Phe

1 5

<210> 22

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<212> PRT

<213> Artificial Sequence

eolf-seql 4

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<223> CDR3

<400> 22

Phe Pro Ala Ile Ser Asn Phe

1 5

<210> 23

<211> 16

<212> PRT

<213> Artificial Sequence

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<223> CDR3

<400> 23

Asp Lys Asp Glu Thr Gly Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr

1 5 10 15

<210> 24

<211> 16

<212> PRT

eolf-seql 4

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<223> CDR3

<400> 24

Asp Lys Asp Arg Asp Gly Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr

1 5 10 15

<210> 25

<211> 16

<212> PRT

<213> Artificial Sequence

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<223> CDR3

<400> 25

Asp Lys Asp Arg Tyr Gly Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr

1 5 10 15

<210> 26

eolf-seql 4

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> FR1

<400> 26

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20

25

<210> 27

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> FR1

<400> 27

eolf-seql 4

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 Asn

20 25

<210> 28

<211> 25

<212> PRT

<213> Artificial Sequence

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<223> FR1

<400> 28

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

20 25

eolf-seql 4

<210> 29

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> FR1

<400> 29

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

1

5

10

15

Pro Leu Arg Leu Ser Cys Ala Ala Ser

20

25

<210> 30

<211> 14

<212> PRT

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Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val Ala

1 5 10

<210> 31

<211> 14

<212> PRT

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<400> 31

Trp Tyr Arg Gln Thr Pro Gly Lys Tyr Arg Glu Trp Val Ala

1 5 10

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<211> 14

<212> PRT

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eolf-seql 4

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Trp Phe Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val Ala

1 5 10

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<211> 14

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<223> FR2

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

1 5 10

<210> 34

<211> 39

<212> PRT

eolf-seql 4

<213> Artificial Sequence

<220>

<223> FR3

<400> 34

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

1 5 10 15

Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Thr Val Tyr Tyr Cys Asn Thr

35

<210> 35

<211> 39

<212> PRT

<213> Artificial Sequence

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<223> FR3

eolf-seql 4

<400> 35

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

1 5 10 15

Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Thr Val Tyr Tyr Cys Asn Thr

35

<210> 36

<211> 39

<212> PRT

<213> Artificial Sequence

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<223> FR3

<400> 36

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

eolf-seql 4
10

1 5 15

Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys Val Ala
35

<210> 37

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 37

Tyr Thr Asp Ser Val Lys Gly Arg Phe Thr Leu Ser Gly Asp Asn Ala
1 5 10 15

Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr

20 eolf-seql 4 25 30

Ala Val Tyr Tyr Cys Val Ala
35

<210> 38

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 38

Tyr Thr Glu Ser Val Lys Gly Arg Phe Thr Leu Ser Gly Asp Asn Ala
1 5 10 15

Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys Val Ala

35

<210> 39

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 39

Tyr Thr Asp Ser Val Lys Gly Arg Phe Thr Leu Ser Gly Asp Asn Ala

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Lys Asn Thr Val Tyr Leu Gln Met Asn Asn Leu Asn Pro Glu Asp Thr

20

25

30

Ala Val Tyr Tyr Cys Val Ala

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eolf-seql 4

<211> 11

<212> PRT

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<223> FR4

<400> 40

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

1 5 10

<210> 41

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> FR4

<400> 41

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

1 5 10

eolf-seql 4

<210> 42

<211> 117

<212> PRT

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<400> 42

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100 105 110

Val Thr Val Ser Ser

115

<210> 43

<211> 115

<212> PRT

<213> Artificial Sequence

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<223> Nanobody Sequence

<400> 43

eolf-seql 4

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 eolf-seql 4 105 110

Val Ser Ser

115

<210> 44

<211> 127

<212> PRT

<213> Artificial Sequence

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<223> Nanobody Sequence

<400> 44

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

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

eolf-seql 4

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 Lys Pro Glu Asp Thr Ala Val 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

115

120

125

<210> 45

<211> 133

<212> PRT

<213> Artificial Sequence

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<223> Nanobody Sequence

<400> 45

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

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

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

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

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

eolf-seql 4

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

85

90

95

Ala Ala Asp Ser Thr Ile Tyr Ala Ser Tyr Tyr Glu Cys Gly His Gly

100

105

110

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

115

120

125

Val Thr Val Ser Ser

130

<210> 46

<211> 445

<212> PRT

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<400> 46

eolf-seql 4

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

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

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

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

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

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

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

eolf-seql 4

100

105

110

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

115

120

125

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

130

135

140

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

145

150

155

160

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

165

170

175

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

180

185

190

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

195

200

205

eolf-seql 4

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

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

Leu Leu Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Ile Tyr Tyr Cys
245 250 255

Ala Ala Asp Ser Thr Ile Tyr Ala Ser Tyr Tyr Glu Cys Gly His Gly
260 265 270

Leu Ser Thr Gly Gly Tyr Gly Tyr Asp Ser Trp Gly Gln Gly Thr Leu
275 280 285

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
290 295 300

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

eolf-seql 4

305 310 315 320

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

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

Ser Gly Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala
 355 360 365

Pro Gly Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln
 370 375 380

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

Glu Ser Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
 405 410 415

eolf-seql 4

Asp Thr Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr

420

425

430

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

435

440

445

<210> 47

<211> 427

<212> PRT

<213> Artificial Sequence

<220>

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<400> 47

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

1

5

10

15

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

20

25

30

eolf-seql 4

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

35

40

45

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

50

55

60

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

65

70

75

80

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85

90

95

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

100

105

110

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

115

120

125

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

eolf-seql 4
140

130

135

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

145

150

155

160

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

165

170

175

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Ser Lys Ile Asn

180

185

190

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val

195

200

205

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

210

215

220

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

225

230

235

240

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn

245

250

255

Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

260

265

270

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly

275

280

285

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

290

295

300

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

305

310

315

320

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

325

330

335

Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly

eolf-seql 4

340

345

350

Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp

355

360

365

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

370

375

380

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

385

390

395

400

Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr

405

410

415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420

425

<210> 48

<211> 435

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 48

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 Ser Lys Ile Asn

20 25 30

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val

35 40 45

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

50 55 60

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

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn

85

90

95

Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

100

105

110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly

115

120

125

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

130

135

140

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

145

150

155

160

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

165

170

175

Tyr Thr Ile Gly Pro Tyr Cys Met Gly Trp Phe Arg Gln Ala Pro Gly

eolf-seql 4

180

185

190

Lys Glu Arg Glu Gly Val Ala Ala Ile Asn Met Gly Gly Gly Ile Thr

195

200

205

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

210

215

220

Ala Lys Asn Thr Val Tyr Leu Leu Met Asn Ser Leu Glu Pro Glu Asp

225

230

235

240

Thr Ala Ile Tyr Tyr Cys Ala Ala Asp Ser Thr Ile Tyr Ala Ser Tyr

245

250

255

Tyr Glu Cys Gly His Gly Leu Ser Thr Gly Gly Tyr Gly Tyr Asp Ser

260

265

270

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

275

280

285

eolf-seql 4

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

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

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

Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn Phe Leu
340 345 350

Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val Ala His
355 360 365

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

Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu Gln Met


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385                                     eolf-seql 4
390                                     395
400

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Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg Ala Phe
405 410 415

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

Val Ser Ser
435

<210> 49

<211> 427

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Nanobody Sequence

<400> 49

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

eolf-seql 4
10

1

5

15

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

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val
35 40 45

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

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

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

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

eolf-seql 4

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

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

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

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

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

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

Gln Tyr Thr Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Gly Asp Asn

eolf-seql 4
220

210

215

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

225

230

235

240

Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly Phe Arg

245

250

255

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

260

265

270

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly

275

280

285

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

290

295

300

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

305

310

315

320

eolf-seql 4

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

Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly
340 345 350

Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp
355 360 365

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

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

Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr
405 410 415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420 eolf-seql 4
425

<210> 50

<211> 445

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 50

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

1

5

10

15

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

20

25

30

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

35

40

45

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

eolf-seql 4
50 55 60

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

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

Ala Ala Asp Ser Thr Ile Tyr Ala Ser Tyr Tyr Glu Cys Gly His Gly
100 105 110

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

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

eolf-seql 4

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

Gly Gly Leu Val Gln Ala Gly Gly Pro Leu Arg Leu Ser Cys Ala Ala
180 185 190

Ser Gly Arg Thr Phe Ser Ser Tyr Val Met Gly Trp Phe Arg Gln Ala
195 200 205

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Tyr Trp Ser Asn Gly
210 215 220

Lys Thr Gln Tyr Thr Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Gly
225 230 235 240

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

Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly

eolf-seql 4

260

265

270

Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

275

280

285

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

290

295

300

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

305

310

315

320

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

325

330

335

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

340

345

350

Ser Gly Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala

355

360

365

eolf-seql 4

Pro Gly Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln
370 375 380

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

Glu Ser Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
405 410 415

Asp Thr Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr
420 425 430

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

<210> 51

<211> 435

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 51

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

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

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

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

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

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

eolf-seql 4
90

85

95

Ala Ala Asp Ser Thr Ile Tyr Ala Ser Tyr Tyr Glu Cys Gly His Gly
100 105 110

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

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
145 150 155 160

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

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
180 185 190

eolf-seql 4

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr
195 200 205

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr
210 215 220

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

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

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe
260 265 270

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
275 280 285

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

eolf-seql 4
300

290

295

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val

305

310

315

320

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

325

330

335

Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn Phe Leu

340

345

350

Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val Ala His

355

360

365

Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys Gly Arg

370

375

380

Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu Gln Met

385

390

395

400

eolf-seql 4

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

405

410

415

Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr

420

425

430

Val Ser Ser

435

<210> 52

<211> 427

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 52

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

1

5

10

15

eolf-seql 4

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

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

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

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

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

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

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

eolf-seql 4

115 120 125

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

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

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

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

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val
195 200 205

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

eolf-seql 4

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

225 230 235 240

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn

245 250 255

Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

260 265 270

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly

275 280 285

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

290 295 300

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

305 310 315 320

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

eolf-seql 4
330

325

335

Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly

340

345

350

Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp

355

360

365

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

370

375

380

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

385

390

395

400

Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr

405

410

415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420

425

eolf-seql 4

<210> 53

<211> 267

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 53

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

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

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

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

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

eolf-seql 4
170

165

175

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr
180 185 190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr
195 200 205

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

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

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe
245 250 255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
260 265

eolf-seql 4

<210> 54

<211> 279

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 54

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

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

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

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

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

eolf-seql 4
170

165

175

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

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Trp Ser Asp Gly
195 200 205

Ser 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 Ala Ala Asp Leu Thr Ser Thr Asn
245 250 255

Pro Gly Ser Tyr Ile Tyr Ile Trp Ala Tyr Asp Tyr Trp Gly Gln Gly
260 265 270

eolf-seql 4

Thr Leu Val Thr Val Ser Ser

275

<210> 55

<211> 427

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 55

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 Ser Lys Ile Asn

20

25

30

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val

35

40

45

eolf-seql 4

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

50

55

60

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

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn

85

90

95

Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

100

105

110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly

115

120

125

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

130

135

140

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

eolf-seql 4

145 150 155 160

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

165 170 175

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

180 185 190

Lys Glu Arg Glu Phe Val Ala Ala Ile Tyr Trp Ser Asn Gly Lys Thr

195 200 205

Gln Tyr Thr Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Gly Asp Asn

210 215 220

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

225 230 235 240

Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly Phe Arg

245 250 255

eolf-seql 4

Thr Leu Pro Ile Ala Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
260 265 270

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

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

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

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

Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly
340 345 350

Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp

eolf-seql 4

355

360

365

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

370

375

380

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

385

390

395

400

Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr

405

410

415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420

425

<210> 56

<211> 267

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 56

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 Ser Lys Ile Asn
20 25 30

Asp Met Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val
35 40 45

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

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

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

eolf-seql 4

Thr Phe Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr

100

105

110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly

115

120

125

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

130

135

140

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

145

150

155

160

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

165

170

175

Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly

180

185

190

Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp

eolf-seql 4

195

200

205

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

210

215

220

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

225

230

235

240

Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr

245

250

255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

260

265

<210> 57

<211> 279

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 57

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

eolf-seql 4

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 Leu Val Gln Pro

165

170

175

Gly Gly Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys

180

185

190

Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu

eolf-seql 4

195 200 205

Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser

210 215 220

Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val

225 230 235 240

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe

245 250 255

Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly

260 265 270

Thr Leu Val Thr Val Ser Ser

275

<210> 58

<211> 426

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 58

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

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

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

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

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

eolf-seql 4

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

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

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

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

Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys

eolf-seql 4

180

185

190

Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr

195

200

205

Ala Asp Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys

210

215

220

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

225

230

235

240

Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp

245

250

255

Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly

260

265

270

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

275

280

285

eolf-seql 4

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln
290 295 300

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

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Ser Tyr Val Met Gly
325 330 335

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile
340 345 350

Tyr Trp Ser Asn Gly Lys Thr Gln Tyr Thr Asp Ser Val Lys Gly Arg
355 360 365

Phe Thr Ile Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met
370 375 380

Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp

		eolf-seql 4	
385	390	395	400

Lys	Asp	Glu	Thr	Gly	Phe	Arg	Thr	Leu	Pro	Ile	Ala	Tyr	Asp	Tyr	Trp
				405				410						415	

Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
				420				425	

<210> 59

<211> 427

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 59

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

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

eolf-seql 4

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 Tyr Trp Ser Asn Gly Lys Thr Gln Tyr Thr Asp Ser Val

50

55

60

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

65

70

75

80

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85

90

95

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

100

105

110

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

115

120

125

eolf-seql 4

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

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
145 150 155 160

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
180 185 190

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

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

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

eolf-seql 4

225 230 235 240

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

245 250 255

Ala Phe Ser Arg Ile Tyr Pro 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

eolf-seql 4

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

340

345

350

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

355

360

365

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

370

375

380

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

385

390

395

400

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

405

410

415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420

425

<210> 60

eolf-seql 4

<211> 427

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 60

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65 70 75 80

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

130 135 140

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

eolf-seql 4

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

180

185

190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

195

200

205

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

210

215

220

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225

230

235

240

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

245

250

255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

260

265

270

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

eolf-seql 4

275

280

285

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val

290

295

300

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

305

310

315

320

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

325

330

335

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

340

345

350

Ile Tyr Trp Ser Asn Gly Lys Thr Gln Tyr Thr Asp Ser Val Lys Gly

355

360

365

Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln

370

375

380

eolf-seql 4

Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala

385 390 395 400

Asp Lys Asp Glu Thr Gly Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr

405 410 415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420 425

<210> 61

<211> 427

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 61

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

1 5 10 15

eolf-seql 4

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

eolf-seql 4

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

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

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

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

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

eolf-seql 4

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

Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly
 245 250 255

Phe Arg Thr Leu Pro Ile Ala 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

eolf-seql 4

325

330

335

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

340

345

350

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

355

360

365

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

370

375

380

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

385

390

395

400

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

405

410

415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

420

425

eolf-seql 4

<210> 62

<211> 429

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 62

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

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

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

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

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

eolf-seql 4
170

165

175

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

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Trp Ser Asp Gly
195 200 205

Ser 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 Ala Ala Asp Leu Thr Ser Thr Asn
245 250 255

Pro Gly Ser Tyr Ile Tyr Ile Trp Ala Tyr Asp Tyr Trp Gly Gln Gly
260 265 270

eolf-seql 4

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

Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys
325 330 335

Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg
340 345 350

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

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

370 eolf-seql 4 380
375

Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu
385 390 395 400

Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu
405 410 415

Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
420 425

<210> 63

<211> 417

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 63

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

eolf-seql 4

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
 20 25 30

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

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys
 50 55 60

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

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

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
 100 105 110

eolf-seql 4

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

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

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

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

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr
180 185 190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr
195 200 205

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

eolf-seql 4
220

210

215

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225

230

235

240

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

245

250

255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

260

265

270

Gly Gly Gly Gly 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 Glu Val

290

295

300

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

305

310

315

320

eolf-seql 4

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

325

330

335

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser

340

345

350

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

355

360

365

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln

370

375

380

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile

385

390

395

400

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser

405

410

415

Ser

eolf-seql 4

<210> 64

<211> 577

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 64

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

eolf-seql 4
50 55 60

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

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

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

eolf-seql 4

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

165

170

175

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

180

185

190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

195

200

205

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

210

215

220

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225

230

235

240

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

245

250

255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

eolf-seql 4

260

265

270

Gly Gly Gly Gly 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 Glu Val

290

295

300

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

305

310

315

320

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

325

330

335

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

340

345

350

Ile Tyr Trp Ser Asn Gly Lys Thr Gln Tyr Thr Asp Ser Val Lys Gly

355

360

365

eolf-seql 4

Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln

370

375

380

Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala

385

390

395

400

Asp Lys Asp Glu Thr Gly Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr

405

410

415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

420

425

430

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

435

440

445

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val

450

455

460

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

eolf-seql 4

465 470 475 480

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

485 490 495

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser

500 505 510

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

515 520 525

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln

530 535 540

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile

545 550 555 560

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser

565 570 575

eolf-seql 4

Ser

<210> 65

<211> 577

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 65

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

eolf-seql 4

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys
50 55 60

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

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

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

eolf-seql 4

145 150 155 160

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

165 170 175

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

180 185 190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

195 200 205

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

210 215 220

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225 230 235 240

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

245 250 255

eolf-seql 4

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

260

265

270

Gly Gly Gly Gly 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 Glu Val

290

295

300

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

305

310

315

320

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

325

330

335

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser

340

345

350

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

eolf-seql 4

355

360

365

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln

370

375

380

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile

385

390

395

400

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser

405

410

415

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

420

425

430

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

435

440

445

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

450

455

460

eolf-seql 4

Gln Ala Gly Gly Pro Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
 465 470 475 480

Phe Ser Ser Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
 485 490 495

Arg Glu Phe Val Ala Ala Ile Tyr Trp Ser Asn Gly Lys Thr Gln Tyr
 500 505 510

Thr Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys
 515 520 525

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala
 530 535 540

Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly Phe Arg Thr Leu
 545 550 555 560

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

	eolf-seql 4	
565	570	575

Ser

<210> 66

<211> 577

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 66

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

1	5	10	15
---	---	----	----

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20	25	30
----	----	----

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

eolf-seql 4

35

40

45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

115

120

125

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

130

135

140

eolf-seql 4

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

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

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

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

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

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

Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly

eolf-seql 4

245

250

255

Phe Arg Thr Leu Pro Ile Ala 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 Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

340

345

350

eolf-seql 4

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr
 355 360 365

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

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

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe
 405 410 415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
 420 425 430

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 435 440 445

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val

eolf-seql 4
460

450

455

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu
465 470 475 480

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met
485 490 495

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser
500 505 510

Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly
515 520 525

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
530 535 540

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
545 550 555 560

eolf-seql 4

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser

565

570

575

Ser

<210> 67

<211> 577

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 67

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

eolf-seql 4

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

115

120

125

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

eolf-seql 4
140

130

135

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

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

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

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

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

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

eolf-seql 4

Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly

245

250

255

Phe Arg Thr Leu Pro Ile Ala 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 Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala

325

330

335

Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala

eolf-seql 4

340

345

350

Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser

355

360

365

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

370

375

380

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro

385

390

395

400

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg

405

410

415

Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

420

425

430

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

435

440

445

eolf-seql 4

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
450 455 460

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu
465 470 475 480

Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Ser Lys Ile Asn Asp Met
485 490 495

Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser
500 505 510

Ile Thr Ala Thr Gly Thr Thr Asn Tyr Arg Asp Ser Val Lys Gly Arg
515 520 525

Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Thr Val Tyr Leu Gln Met
530 535 540

Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe

545 eolf-seql 4 550 555 560

Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser
565 570 575

Ser

<210> 68

<211> 378

<212> PRT

<213> Homo sapiens

<400> 68

Met Val Leu Leu Trp Leu Thr Leu Leu Leu Ile Ala Leu Pro Cys Leu
1 5 10 15

Leu Gln Thr Lys Glu Asp Pro Asn Pro Pro Ile Thr Asn Leu Arg Met
20 25 30

eolf-seql 4

Lys Ala Lys Ala Gln Gln Leu Thr Trp Asp Leu Asn Arg Asn Val Thr

35

40

45

Asp Ile Glu Cys Val Lys Asp Ala Asp Tyr Ser Met Pro Ala Val Asn

50

55

60

Asn Ser Tyr Cys Gln Phe Gly Ala Ile Ser Leu Cys Glu Val Thr Asn

65

70

75

80

Tyr Thr Val Arg Val Ala Asn Pro Pro Phe Ser Thr Trp Ile Leu Phe

85

90

95

Pro Glu Asn Ser Gly Lys Pro Trp Ala Gly Ala Glu Asn Leu Thr Cys

100

105

110

Trp Ile His Asp Val Asp Phe Leu Ser Cys Ser Trp Ala Val Gly Pro

115

120

125

Gly Ala Pro Ala Asp Val Gln Tyr Asp Leu Tyr Leu Asn Val Ala Asn

130

135

140

eolf-seql 4

Arg Arg Gln Gln Tyr Glu Cys Leu His Tyr Lys Thr Asp Ala Gln Gly

145 150 155 160

Thr Arg Ile Gly Cys Arg Phe Asp Asp Ile Ser Arg Leu Ser Ser Gly

165 170 175

Ser Gln Ser Ser His Ile Leu Val Arg Gly Arg Ser Ala Ala Phe Gly

180 185 190

Ile Pro Cys Thr Asp Lys Phe Val Val Phe Ser Gln Ile Glu Ile Leu

195 200 205

Thr Pro Pro Asn Met Thr Ala Lys Cys Asn Lys Thr His Ser Phe Met

210 215 220

His Trp Lys Met Arg Ser His Phe Asn Arg Lys Phe Arg Tyr Glu Leu

225 230 235 240

eolf-seql 4

Gln Ile Gln Lys Arg Met Gln Pro Val Ile Thr Glu Gln Val Arg Asp

245

250

255

Arg Thr Ser Phe Gln Leu Leu Asn Pro Gly Thr Tyr Thr Val Gln Ile

260

265

270

Arg Ala Arg Glu Arg Val Tyr Glu Phe Leu Ser Ala Trp Ser Thr Pro

275

280

285

Gln Arg Phe Glu Cys Asp Gln Glu Glu Gly Ala Asn Thr Arg Ala Trp

290

295

300

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

305

310

315

320

Val Phe Val Ile Cys Arg Arg Tyr Leu Val Met Gln Arg Leu Phe Pro

325

330

335

Arg Ile Pro His Met Lys Asp Pro Ile Gly Asp Ser Phe Gln Asn Asp

340

345

350

eolf-seql 4

Lys Leu Val Val Trp Glu Ala Gly Lys Ala Gly Leu Glu Glu Cys Leu

355

360

365

Val Thr Glu Val Gln Val Val Gln Lys Thr

370

375

<210> 69

<211> 378

<212> PRT

<213> *Macaca fascicularis*

<400> 69

Met Thr Leu Leu Trp Leu Thr Leu Leu Leu Val Ala Thr Pro Cys Leu

1

5

10

15

Leu Arg Thr Lys Glu Asp Pro Asn Ala Pro Ile Arg Asn Leu Arg Met

20

25

30

Lys Glu Lys Ala Gln Gln Leu Met Trp Asp Leu Asn Arg Asn Val Thr

eolf-seql 4

35

40

45

Asp Val Glu Cys Ile Lys Gly Thr Asp Tyr Ser Met Pro Ala Met Asn

50

55

60

Asn Ser Tyr Cys Gln Phe Gly Ala Ile Ser Leu Cys Glu Val Thr Asn

65

70

75

80

Tyr Thr Val Arg Val Ala Ser Pro Pro Phe Ser Thr Trp Ile Leu Phe

85

90

95

Pro Glu Asn Ser Gly Thr Pro Arg Ala Gly Ala Glu Asn Leu Thr Cys

100

105

110

Trp Val His Asp Val Asp Phe Leu Ser Cys Ser Trp Val Val Gly Pro

115

120

125

Ala Ala Pro Ala Asp Val Gln Tyr Asp Leu Tyr Leu Asn Asn Pro Asn

130

135

140

eolf-seql 4

Ser His Glu Gln Tyr Arg Cys Leu His Tyr Lys Thr Asp Ala Arg Gly
145 150 155 160

Thr Gln Ile Gly Cys Arg Phe Asp Asp Ile Ala Pro Leu Ser Arg Gly
165 170 175

Ser Gln Ser Ser His Ile Leu Val Arg Gly Arg Ser Ala Ala Val Ser
180 185 190

Ile Pro Cys Thr Asp Lys Phe Val Phe Phe Ser Gln Ile Glu Arg Leu
195 200 205

Thr Pro Pro Asn Met Thr Gly Glu Cys Asn Glu Thr His Ser Phe Met
210 215 220

His Trp Lys Met Lys Ser His Phe Asn Arg Lys Phe Arg Tyr Glu Leu
225 230 235 240

Arg Ile Gln Lys Arg Met Gln Pro Val Arg Thr Glu Gln Val Arg Asp

eolf-seql 4
250

245

255

Thr Thr Ser Phe Gln Leu Pro Asn Pro Gly Thr Tyr Thr Val Gln Ile

260

265

270

Arg Ala Arg Glu Thr Val Tyr Glu Phe Leu Ser Ala Trp Ser Thr Pro

275

280

285

Gln Arg Phe Glu Cys Asp Gln Glu Glu Gly Ala Ser Ser Arg Ala Trp

290

295

300

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

305

310

315

320

Val Phe Leu Ile Cys Arg Arg Tyr Leu Val Met Gln Arg Leu Phe Pro

325

330

335

Arg Ile Pro His Met Lys Asp Pro Ile Gly Asp Thr Phe Gln Gln Asp

340

345

350

eolf-seql 4

Lys Leu Val Val Trp Glu Ala Gly Lys Ala Gly Leu Glu Glu Cys Leu

355

360

365

Val Ser Glu Val Gln Val Val Glu Lys Thr

370

375

<210> 70

<211> 171

<212> PRT

<213> Homo sapiens

<400> 70

Met Glu His Ser Thr Phe Leu Ser Gly Leu Val Leu Ala Thr Leu Leu

1

5

10

15

Ser Gln Val Ser Pro Phe Lys Ile Pro Ile Glu Glu Leu Glu Asp Arg

20

25

30

Val Phe Val Asn Cys Asn Thr Ser Ile Thr Trp Val Glu Gly Thr Val

35

40

45

eolf-seql 4

Gly Thr Leu Leu Ser Asp Ile Thr Arg Leu Asp Leu Gly Lys Arg Ile

50

55

60

Leu Asp Pro Arg Gly Ile Tyr Arg Cys Asn Gly Thr Asp Ile Tyr Lys

65

70

75

80

Asp Lys Glu Ser Thr Val Gln Val His Tyr Arg Met Cys Gln Ser Cys

85

90

95

Val Glu Leu Asp Pro Ala Thr Val Ala Gly Ile Ile Val Thr Asp Val

100

105

110

Ile Ala Thr Leu Leu Leu Ala Leu Gly Val Phe Cys Phe Ala Gly His

115

120

125

Glu Thr Gly Arg Leu Ser Gly Ala Ala Asp Thr Gln Ala Leu Leu Arg

130

135

140

eolf-seql 4

Asn Asp Gln Val Tyr Gln Pro Leu Arg Asp Arg Asp Asp Ala Gln Tyr

145 150 155 160

Ser His Leu Gly Gly Asn Trp Ala Arg Asn Lys

165 170

<210> 71

<211> 182

<212> PRT

<213> Homo sapiens

<400> 71

Met Glu Gln Gly Lys Gly Leu Ala Val Leu Ile Leu Ala Ile Ile Leu

1 5 10 15

Leu Gln Gly Thr Leu Ala Gln Ser Ile Lys Gly Asn His Leu Val Lys

20 25 30

Val Tyr Asp Tyr Gln Glu Asp Gly Ser Val Leu Leu Thr Cys Asp Ala

35 40 45

eolf-seql 4

Glu Ala Lys Asn Ile Thr Trp Phe Lys Asp Gly Lys Met Ile Gly Phe

50

55

60

Leu Thr Glu Asp Lys Lys Lys Trp Asn Leu Gly Ser Asn Ala Lys Asp

65

70

75

80

Pro Arg Gly Met Tyr Gln Cys Lys Gly Ser Gln Asn Lys Ser Lys Pro

85

90

95

Leu Gln Val Tyr Tyr Arg Met Cys Gln Asn Cys Ile Glu Leu Asn Ala

100

105

110

Ala Thr Ile Ser Gly Phe Leu Phe Ala Glu Ile Val Ser Ile Phe Val

115

120

125

Leu Ala Val Gly Val Tyr Phe Ile Ala Gly Gln Asp Gly Val Arg Gln

130

135

140

Ser Arg Ala Ser Asp Lys Gln Thr Leu Leu Pro Asn Asp Gln Leu Tyr

eolf-seql 4
155

145 150 160

Gln Pro Leu Lys Asp Arg Glu Asp Asp Gln Tyr Ser His Leu Gln Gly
165 170 175

Asn Gln Leu Arg Arg Asn
180

<210> 72

<211> 207

<212> PRT

<213> Homo sapiens

<400> 72

Met Gln Ser Gly Thr His Trp Arg Val Leu Gly Leu Cys Leu Leu Ser
1 5 10 15

Val Gly Val Trp Gly Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr
20 25 30

eolf-seql 4

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

35

40

45

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

50

55

60

Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp

65

70

75

80

His Leu Ser Leu Lys Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr

85

90

95

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

100

105

110

Tyr Leu Arg Ala Arg Val Cys Glu Asn Cys Met Glu Met Asp Val Met

115

120

125

Ser Val Ala Thr Ile Val Ile Val Asp Ile Cys Ile Thr Gly Gly Leu

130

135

140

eolf-seql 4

Leu Leu Leu Val Tyr Tyr Trp Ser Lys Asn Arg Lys Ala Lys Ala Lys

145 150 155 160

Pro Val Thr Arg Gly Ala Gly Ala Gly Gly Arg Gln Arg Gly Gln Asn

165 170 175

Lys Glu Arg Pro Pro Pro Val Pro Asn Pro Asp Tyr Glu Pro Ile Arg

180 185 190

Lys Gly Gln Arg Asp Leu Tyr Ser Gly Leu Asn Gln Arg Arg Ile

195 200 205

<210> 73

<211> 164

<212> PRT

<213> Homo sapiens

<400> 73

Met Lys Trp Lys Ala Leu Phe Thr Ala Ala Ile Leu Gln Ala Gln Leu

eolf-seql 4

1	5	10	15												
Pro	Ile	Thr	Glu	Ala	Gln	Ser	Phe	Gly	Leu	Leu	Asp	Pro	Lys	Leu	Cys
	20		25		30										
Tyr	Leu	Leu	Asp	Gly	Ile	Leu	Phe	Ile	Tyr	Gly	Val	Ile	Leu	Thr	Ala
	35		40		45										
Leu	Phe	Leu	Arg	Val	Lys	Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr
	50		55		60										
Gln	Gln	Gly	Gln	Asn	Gln	Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg
65			70		75									80	
Glu	Glu	Tyr	Asp	Val	Leu	Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met
			85		90									95	
Gly	Gly	Lys	Pro	Gln	Arg	Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn
	100		105		110										

eolf-seql 4

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met

115

120

125

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly

130

135

140

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala

145

150

155

160

Leu Pro Pro Arg

<210> 74

<211> 142

<212> PRT

<213> Homo sapiens

<400> 74

Pro Asn Ile Gln Asn Pro Asp Pro Ala Val Tyr Gln Leu Arg Asp Ser

1

5

10

15

eolf-seql 4

Lys Ser Ser Asp Lys Ser Val Cys Leu Phe Thr Asp Phe Asp Ser Gln

20

25

30

Thr Asn Val Ser Gln Ser Lys Asp Ser Asp Val Tyr Ile Thr Asp Lys

35

40

45

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

50

55

60

Ala Trp Ser Asn Lys Ser Asp Phe Ala Cys Ala Asn Ala Phe Asn Asn

65

70

75

80

Ser Ile Ile Pro Glu Asp Thr Phe Phe Pro Ser Pro Glu Ser Ser Cys

85

90

95

Asp Val Lys Leu Val Glu Lys Ser Phe Glu Thr Asp Thr Asn Leu Asn

100

105

110

eolf-seql 4

Phe Gln Asn Leu Ser Val Ile Gly Phe Arg Ile Leu Leu Leu Lys Val

115

120

125

Ala Gly Phe Asn Leu Leu Met Thr Leu Arg Leu Trp Ser Ser

130

135

140

<210> 75

<211> 177

<212> PRT

<213> Homo sapiens

<400> 75

Glu Asp Leu Asn Lys Val Phe Pro Pro Glu Val Ala Val Phe Glu Pro

1

5

10

15

Ser Glu Ala Glu Ile Ser His Thr Gln Lys Ala Thr Leu Val Cys Leu

20

25

30

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

35

40

45

eolf-seql 4

Gly Lys Glu Val His Ser Gly Val Ser Thr Asp Pro Gln Pro Leu Lys

50

55

60

Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr Cys Leu Ser Ser Arg Leu

65

70

75

80

Arg Val Ser Ala Thr Phe Trp Gln Asn Pro Arg Asn His Phe Arg Cys

85

90

95

Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp Glu Trp Thr Gln Asp

100

105

110

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

115

120

125

Ala Asp Cys Gly Phe Thr Ser Val Ser Tyr Gln Gln Gly Val Leu Ser

130

135

140

Ala Thr Ile Leu Tyr Glu Ile Leu Leu Gly Lys Ala Thr Leu Tyr Ala

		eolf-seql 4	
145	150	155	160

Val	Leu	Val	Ser	Ala	Leu	Val	Leu	Met	Ala	Met	Val	Lys	Arg	Lys	Asp
				165					170					175	

Phe

<210> 76

<211> 108

<212> PRT

<213> Homo sapiens

<400> 76

Gln	Leu	Leu	Glu	Gln	Ser	Pro	Gln	Phe	Leu	Ser	Ile	Gln	Glu	Gly	Glu
1			5					10					15		

Asn	Leu	Thr	Val	Tyr	Cys	Asn	Ser	Ser	Ser	Val	Phe	Ser	Ser	Leu	Gln
			20					25					30		

eolf-seql 4

Trp Tyr Arg Gln Glu Pro Gly Glu Gly Pro Val Leu Leu Val Thr Val

35

40

45

Val Thr Gly Gly Glu Val Lys Lys Leu Lys Arg Leu Thr Phe Gln Phe

50

55

60

Gly Asp Ala Arg Lys Asp Ser Ser Leu His Ile Thr Ala Ala Gln Pro

65

70

75

80

Gly Asp Thr Gly Leu Tyr Leu Cys Ala Gly Ala Gly Ser Gln Gly Asn

85

90

95

Leu Ile Phe Gly Lys Gly Thr Lys Leu Ser Val Lys

100

105

<210> 77

<211> 112

<212> PRT

<213> Homo sapiens

<400> 77

eolf-seql 4

Asp Gly Gly Ile Thr Gln Ser Pro Lys Tyr Leu Phe Arg Lys Glu Gly

1 5 10 15

Gln Asn Val Thr Leu Ser Cys Glu Gln Asn Leu Asn His Asp Ala Met

20 25 30

Tyr Trp Tyr Arg Gln Asp Pro Gly Gln Gly Leu Arg Leu Ile Tyr Tyr

35 40 45

Ser Gln Ile Val Asn Asp Phe Gln Lys Gly Asp Ile Ala Glu Gly Tyr

50 55 60

Ser Val Ser Arg Glu Lys Lys Glu Ser Phe Pro Leu Thr Val Thr Ser

65 70 75 80

Ala Gln Lys Asn Pro Thr Ala Phe Tyr Leu Cys Ala Ser Ser Ser Arg

85 90 95

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

100 eolf-seql 4 105 110

<210> 78

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 78

Glu Val Gln Leu Val 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 Ser Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val

35 40 45

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

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val His Phe Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 79

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 79

Glu Val Gln Leu Val 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 Ser Val His Lys Ile Asn
20 25 30

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

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

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

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

eolf-seql 4

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 80

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 80

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

1

5

10

15

Ser Leu Arg Leu Pro Cys Ala Ala Ser Gly Ser Val His Lys Ile Asn

20

25

30

eolf-seql 4

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

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 81

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 81

Glu Val Gln Leu Val 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 Ser Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val

35 40 45

Ala Thr Ile Thr Ile Gly Asp Thr Thr Asp Tyr Ala Asp Tyr Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Arg Asn Met Val Tyr Leu

		eolf-seql 4				
65		70		75		80
Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg						
		85		90		95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 82

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 82

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

eolf-seql 4

1 5 10 15

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

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

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

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

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

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu
 100 105 110

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 83

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 83

Glu Val Gln Leu Val 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 Ser Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val

35 40 45

eolf-seql 4

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 84

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 84

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Ser Val His Leu Leu Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

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

85 eolf-seql 4 95
90

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

Val Thr Val Ser Ser
115

<210> 85

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 85

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

eolf-seql 4

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 86

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 86

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Arg Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Glu Ser Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100 105 110

Val Thr Val Ser Ser

115

<210> 87

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 87

eolf-seql 4

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 88

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 88

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 89

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 89

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Gly Asp Gln Ala Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 90

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 90

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

1

5

10

15

eolf-seql 4

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Val His Lys Ile Asn

20

25

30

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

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 91

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 91

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn

20

25

30

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

35

40

45

Ala His Ile Ser Ile Ala Asp Ala Thr Asp Tyr Ala His Phe Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Arg Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 92

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 92

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

Ser	Leu	Arg	Leu	Ser	Cys	Arg	Ala	Ser	Gly	Asp	Val	His	Lys	Ile	Asn
			20						25					30	

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

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

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

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

eolf-seql 4

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 93

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 93

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn

20

25

30

eolf-seql 4

Phe Leu Gly Trp Tyr Arg Gln Cys Pro Gly Lys Glu Arg Glu Met Val

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 94

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 94

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

1 5 10 15

Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Ser Val His Leu Leu Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala His Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

eolf-seql 4

1 5 10 15

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

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

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala His Phe Ala Lys
 50 55 60

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

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

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

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 96

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 96

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

1

5

10

15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val

35

40

45

eolf-seql 4

Ala His Ile Thr Ile Gly Asp Glu Val Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Thr Ser Leu Thr Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 97

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 97

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp His Arg Gln Pro Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

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

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 eolf-seql 4 95
90

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 98

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 98

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

eolf-seql 4

20

25

30

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val His Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 99

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 99

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asn Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 105 110

Val Thr Val Ser Ser

115

<210> 100

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 100

eolf-seql 4

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

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

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Phe Leu

65 70 75 80

Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 101

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 101

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Gly Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 102

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 102

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 103

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 103

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

1

5

10

15

eolf-seql 4

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

20

25

30

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

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Val Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 104

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 104

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 105

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 105

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
20 25 30

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

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

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

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

eolf-seql 4

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 106

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 106

Glu Val Gln Leu Val 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 Ser Val His Lys Ile Asn

20

25

30

eolf-seql 4

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val

35

40

45

Ala Thr Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Tyr Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Arg Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 107

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 107

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Ala Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

eolf-seql 4

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100 105 110

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 109

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 109

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Val His Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Val Val

35

40

45

eolf-seql 4

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 110

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 110

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

1 5 10 15

Ser Ala Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 eolf-seql 4 95
90

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 111

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 111

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn

eolf-seql 4

20

25

30

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

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 112

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 112

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Ser Val His Leu Leu Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Gly Val Val

35 40 45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

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

85 90 95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100 105 110

Val Thr Val Ser Ser

115

<210> 113

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 113

eolf-seql 4

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

1 5 10 15

Ser Leu Thr Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 114

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 114

Glu Val Gln Leu Val 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 Gly Val His Lys Ile Asn

20

25

30

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

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 115

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 115

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Gln

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 116

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 116

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

1

5

10

15

eolf-seql 4

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

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

35

40

45

Ala His Ile Thr Ile Gly Asp Thr Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 117

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 117

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn

20

25

30

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

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly His Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 118

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 118

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
20 25 30

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

Ala His Ile Thr Ile Gly Asp Gln Ala Asp Tyr Ala Asp Ser Ala Lys
50 55 60

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

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

eolf-seql 4

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Arg Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 119

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 119

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Ser Val His Leu Leu Asn

20

25

30

eolf-seql 4

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

35

40

45

Thr His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 120

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 120

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala Glu Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro Lys Asn Met Val His Leu

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

85 90 95

eolf-seql 4

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn
 20 25 30

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

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

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

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

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Arg Gly Thr Gln
 100 105 110

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 122

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 122

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

eolf-seql 4

Ala Arg Ile Ser Ile Ser Asp Gln Thr Asp Tyr Ala Glu Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 123

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 123

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Glu Val Tyr Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys

50 55 60

Gly Arg Leu Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg


```

85          eolf-seql 4
          90          95

```

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

105

110

Val Thr Val Ser Ser
115

$\langle 210 \rangle$ 124

<211> 117

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Nanobody Sequence

$\langle 400 \rangle$ 124

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

1 5 10 15

5

10

15

Ser Leu Lys Leu Pro Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

eolf-seql 4

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 125

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 125

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

1 5 10 15

Ser Leu Gly Leu Ser Cys Ala Ala Ser Gly Ser Val His Leu Leu Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala His Phe Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

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

85 90 95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100 105 110

Val Thr Val Ser Ser

115

<210> 126

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 126

eolf-seql 4

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 127

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 127

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Ala Asp Tyr Ala Asp Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Gly Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 128

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 128

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Val Tyr Lys Ile Asn

20 25 30

Phe Leu Ser Trp Tyr Arg Gln Ala Pro Gly His Glu Arg Glu Leu Val

35 40 45

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

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Arg Asn Met Val Tyr Leu

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Phe Cys His

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 129

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 129

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

1

5

10

15

eolf-seql 4

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Val His Leu Leu Asn

20

25

30

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

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 130

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 130

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Ala Ile Ser Asp Gln Thr Asp Tyr Ala Glu Ser Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 131

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 131

Glu	Val	Gln	Leu	Val	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	Asp	Val	His	Lys	Ile	Asn
			20						25					30	

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

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

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

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

eolf-seql 4

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 132

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 132

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20

25

30

eolf-seql 4

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 133

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 133

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Ala Lys Glu His Glu Met Val

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

eolf-seql 4

1	5	10	15
Ser	Leu	Arg	Leu
Ser	Cys	Ala	Ala
Ser	Gly	Asp	Val
His	Lys	Ile	Asn
20	25	30	
Ile	Leu	Gly	Trp
Tyr	Arg	Gln	Ala
Pro	Ala	Arg	Glu
Arg	Glu	Met	Val
35	40	45	
Ala	His	Ile	Thr
Ile	Gly	Asp	Ala
Thr	Asp	Tyr	Ala
Asp	Ser	Ala	Lys
50	55	60	
Gly	Arg	Phe	Thr
Ile	Ser	Arg	Asp
Glu	Ala	Lys	Asn
Met	Val	Tyr	Leu
65	70	75	80
Gln	Met	Asn	Ser
Leu	Lys	Pro	Glu
Asp	Thr	Ala	Val
Tyr	Phe	Cys	Arg
85	90	95	
Ala	Tyr	Ser	Arg
Ile	Tyr	Pro	Tyr
Asn	Tyr	Trp	Gly
Gln	Gly	Thr	Gln
100	105	110	

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 135

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 135

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20

25

30

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

35

40

45

eolf-seql 4

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Glu Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 136

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 136

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

1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val

35 40 45

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

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85 eolf-seql 4 95
90

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 137

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 137

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

eolf-seql 4

20

25

30

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

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Thr Asn Met Val Tyr Leu

65

70

75

80

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 138

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 138

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Ser Tyr Ala Gly Ser Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Leu Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 105 110

Val Thr Val Ser Ser

115

<210> 139

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 139

eolf-seql 4

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Ser Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Leu Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 140

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 140

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala Glu Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 141

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 141

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

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

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

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

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

eolf-seql 4

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 142

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 142

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

1

5

10

15

eolf-seql 4

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 143

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 143

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Ala Asp Tyr Ala Asp Phe Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 144

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 144

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn
20 25 30

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

Ala His Ile Thr Ile Ala Asp Ala Ala Asp Tyr Ala Asp Phe Ala Lys
50 55 60

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

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

eolf-seql 4

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 145

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 145

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

1

5

10

15

Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Ser Val His Lys Ile Asn

20

25

30

eolf-seql 4

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

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 146

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 146

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Val Lys Asn Met Val Tyr Leu

eolf-seql 4
75

65

70

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 147

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 147

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

eolf-seql 4

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 105 110

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 148

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 148

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

eolf-seql 4

Ala His Ile Thr Ile Ala Asp Ala Ala Asp Tyr Ala Asp Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 149

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 149

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Val Thr Asp Tyr Ser Tyr Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

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

85 eolf-seql 4 95
90

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 150

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 150

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

eolf-seql 4

20

25

30

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Val Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 151

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 151

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Val His Lys Ile Asn

20 25 30

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

35 40 45

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

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

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

85 90 95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100 105 110

Val Thr Val Ser Ser

115

<210> 152

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 152

eolf-seql 4

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

1 5 10 15

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Ala Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val

35 40 45

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

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Thr Gly Leu Lys Pro Glu Asp Thr Ala Val Tyr Val Cys Arg

85 90 95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 153

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 153

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

eolf-seql 4

35

40

45

Ala His Ile Ser Ile Ser Asp Gln Thr Asp Tyr Ala Glu Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 154

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 154

Glu Val Gln Leu Val 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 Asp Val Tyr Lys Ile Asn
 20 25 30

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

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

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

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 155

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 155

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

1

5

10

15

eolf-seql 4

Ser Leu Arg Leu Ser Cys Arg Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Ala Lys Glu Arg Glu Met Ile

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Glu Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 156

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 156

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20

25

30

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 157

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 157

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

Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Asp	Val	His	Lys	Ile	Asn
			20						25				30		

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

Ala	His	Ile	Thr	Ile	Ala	Asp	Ala	Thr	Asp	Tyr	Ala	Glu	Phe	Ala	Lys
	50					55					60				

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

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

eolf-seql 4

Ala Gly Ser Arg Ile Tyr Pro Tyr Ser Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 158

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 158

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

eolf-seql 4

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 159

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 159

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn
20 25 30

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

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

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

		eolf-seql 4				
65		70		75		80
Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ala Tyr Phe Cys Arg						
		85		90		95

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

Val Thr Val Ser Ser
115

<210> 160

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 160

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

eolf-seql 4

1 5 10 15

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

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

Ala His Ile Thr Ile Ala Asp Ala Ala Asp Tyr Ala Asp Phe Ala Lys
 50 55 60

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

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

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

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 161

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 161

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn

20 25 30

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

35 40 45

eolf-seql 4

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Gly Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 162

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 162

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala Glu Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

eolf-seql 4
90

85

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 163

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 163

Glu Val Gln Leu Val 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 Glu Val His Lys Ile Asn

eolf-seql 4

20

25

30

Ile Leu Gly Trp Tyr Arg Gln Cys Pro Gly Lys Glu Arg Asp Met Val

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Leu Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 164

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 164

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Leu Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100 105 110

Val Thr Val Ser Ser

115

<210> 165

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 165

eolf-seql 4

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

<210> 166

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 166

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

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

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ala Glu Phe Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Val Asp Thr Ala Val Tyr Leu Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 167

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 167

Glu Val Gln Leu Val 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 Ser Val His Leu Leu Asn
 20 25 30

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

Ala His Ile Thr Ile Ala Asp Ala Thr Asp Tyr Ser His Phe Ala Lys
 50 55 60

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

eolf-seql 4

Gln Met Asn Asn Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 168

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 168

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

1

5

10

15

eolf-seql 4

Ser Pro Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20

25

30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35

40

45

Ala His Ile Thr Ile Gly Asp Gln Ala Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 169

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 169

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20

25

30

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Ala Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 170

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 170

Glu Val Gln Leu Val 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 Glu Val Tyr Lys Ile Asn
20 25 30

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

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys
50 55 60

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

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

eolf-seql 4

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 171

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 171

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Val His Lys Ile Asn

20

25

30

eolf-seql 4

Phe Leu Gly Trp Tyr Cys Gln Ala Pro Gly Lys Glu Arg Glu Met Val

35

40

45

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

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

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

85

90

95

Ala Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

100

105

110

Val Thr Val Ser Ser

115

<210> 172

eolf-seql 4

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 172

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Ser Asp Gln Thr Asp Tyr Ala Glu Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

eolf-seql 4

1 5 10 15

Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Glu Val Tyr Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Thr Ile Ala Asp Val Ala Asp Tyr Ala Asp Phe Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Gly Ser Arg Ile Trp Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Gln

100 105 110

eolf-seql 4

Val Thr Val Ser Ser

115

<210> 174

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 174

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

1 5 10 15

Ser Leu Arg Pro Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

eolf-seql 4

Ala His Ile Thr Ile Ala Asp Gln Ala Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 175

<211> 117

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 175

Glu Val Gln Leu Val 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 Glu Val His Lys Ile Asn

20 25 30

Ile Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Asp Met Val

35 40 45

Ala Thr Ile Thr Ile Gly Asp Glu Thr Gln Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

eolf-seql 4
90

85

95

Ala Leu Ser Arg Leu Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

<210> 176

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 176

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

eolf-seql 4

20

25

30

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

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asp Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

eolf-seql 4

<210> 177

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 177

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

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

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

eolf-seql 4

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

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

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 105 110

Val Thr Val Ser Ser

115

<210> 178

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 178

eolf-seql 4

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

Ile Leu Gly Trp His Arg Gln Ala Pro Ala Lys Glu Arg Glu Met Val

35 40 45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100 eolf-seql 4 105 110

Val Thr Val Ser Ser

115

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<400> 179

Glu Val Gln Leu Val 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 Asp Val His Lys Ile Asn

20 25 30

Ile Leu Gly Trp His Arg Gln Ala Pro Ala Lys Glu Arg Glu Met Val

eolf-seql 4

35

40

45

Ala His Ile Thr Ile Gly Asp Ala Thr Asp Tyr Ala Asp Ser Ala Lys

50

55

60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ala Tyr Phe Cys Arg

85

90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Gln

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Val Thr Val Ser Ser

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

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

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

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

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

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90

95

Ala Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser

115

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Gly Asp Val His Lys Ile Asn Phe Leu Gly

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Gly Ser Val His Lys Ile Asn Phe Leu Gly

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<400> 183

Gly Ser Val His Leu Leu Asn Phe Leu Gly

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<400> 184

Gly Ala Val His Lys Ile Asn Phe Leu Gly

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Gly Asp Val His Lys Ile Asn Ile Leu Gly

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Gly Asp Val His Lys Ile Asn Val Leu Gly

1 5 10

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Gly Glu Val Tyr Lys Ile Asn Phe Leu Gly

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Gly Gly Val His Lys Ile Asn Ile Leu Gly

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Gly Ser Val Tyr Lys Ile Asn Phe Leu Ser

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Gly Asp Val Tyr Lys Ile Asn Phe Leu Gly

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Gly Glu Val His Lys Ile Asn Ile Leu Gly

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His Ile Ser Ile Gly Asp Gln Thr Asp

1 5

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<400> 193

Thr Ile Thr Ile Gly Asp Thr Thr Asp

1 5

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<400> 194

Thr Ile Thr Ile Gly Asp Ala Thr Asp

1 5

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<400> 195

His Ile Thr Ile Ala Asp Ala Thr Asp

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Thr Ile Thr Ile Gly Asp Asp Val Asp

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<400> 197

His Ile Thr Ile Gly Asp Ala Thr Asp

1 5

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<211> 9

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<400> 198

eolf-seql 4

His Ile Thr Ile Gly Asp Gln Ala Asp

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<400> 199

His Ile Ser Ile Ala Asp Ala Thr Asp

1 5

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His Ile Thr Ile Gly Asp Ala Thr Val

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His Ile Thr Ile Gly Asp Glu Val Asp

1 5

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<400> 202

His Ile Thr Ile Gly Asp Val Thr Asp

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His Ile Thr Ile Gly Asp Ala Thr Asn

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His Ile Thr Ile Ala Asp Val Ala Asp

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Thr Ile Thr Ile Gly Asp Glu Val Asp

1 5

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<400> 206

His Ile Ser Ile Ser Asp Gln Thr Asp

1 5

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His Ile Thr Ile Gly Asp Gln Thr Asp

1 5

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<223> CDR2

<400> 208

His Ile Thr Ile Gly Asp Thr Thr Asp

1

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<212> PRT

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<223> CDR2

<400> 209

Arg Ile Ser Ile Ser Asp Gln Thr Asp

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1 5

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<400> 210

His Ile Thr Ile Ala Asp Ala Ala Asp

1 5

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<223> CDR2

<400> 211

eolf-seql 4

Thr Ile Thr Ile Gly Asp Ala Ala Asp

1 5

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<212> PRT

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<400> 212

His Ile Ala Ile Ser Asp Gln Thr Asp

1 5

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<211> 9

<212> PRT

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eolf-seql 4

<400> 213

His Ile Thr Ile Gly Asp Ala Thr Ser

1 5

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<211> 9

<212> PRT

<213> Artificial Sequence

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<400> 214

Thr Ile Thr Ile Gly Asp Glu Val Ala

1 5

<210> 215

<211> 9

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<400> 215

His Ile Thr Ile Ala Asp Val Thr Asp

1 5

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<211> 9

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<400> 216

His Ile Thr Ile Ala Asp Gln Ala Asp

1 5

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<211> 9

<212> PRT

eolf-seql 4

<213> Artificial Sequence

<220>

<223> CDR2

<400> 217

Thr Ile Thr Ile Gly Asp Glu Thr Gln

1 5

<210> 218

<211> 9

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<213> Artificial Sequence

<220>

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<400> 218

Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr

1 5

<210> 219

eolf-seql 4

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<212> PRT

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<223> CDR3

<400> 219

Gly Ser Arg Leu Tyr Pro Tyr Asn Tyr

1 5

<210> 220

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

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Gly Ser Arg Ile Tyr Pro Tyr Asp Tyr

1 5

eolf-seql 4

<210> 221

<211> 9

<212> PRT

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<223> CDR3

<400> 221

Tyr Ser Arg Ile Tyr Pro Tyr Asn Tyr

1 5

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<211> 9

<212> PRT

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<400> 222

Gly Ser Arg Ile Trp Pro Tyr Asp Tyr

1 5

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<211> 9

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<223> CDR3

<400> 223

Gly Ser Arg Ile Tyr Pro Tyr Asn Tyr

1 5

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<211> 9

<212> PRT

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<223> CDR3

<400> 224

Gly Ser Arg Ile Tyr Pro Tyr Ser Tyr

1 5

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<211> 9

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Leu Ser Arg Leu Tyr Pro Tyr Asn Tyr

1 5

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eolf-seql 4

<400> 226

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser

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<211> 25

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<213> Artificial Sequence

<220>

<223> FR1

<400> 227

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 eolf-seql 4
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<400> 228

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

1 5 10 15

Ser Leu Arg Leu Pro Cys Ala Ala Ser

20 25

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<211> 25

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<213> Artificial Sequence

eolf-seql 4

<220>

<223> FR1

<400> 229

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser

20 25

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<212> PRT

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<223> FR1

<400> 230

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

1 5 10 15

eolf-seql 4

Ser Leu Lys Leu Ser Cys Ala Ala Ser

20

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<210> 231

<211> 25

<212> PRT

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<400> 231

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Arg Ala Ser

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<211> 25

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eolf-seql 4

<213> Artificial Sequence

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

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<213> Artificial Sequence

<220>

<223> FR1

<400> 233

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

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Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser
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<211> 25

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<223> FR1

<400> 234

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly
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Ser	Leu	Arg	Pro	Ser	Cys	Ala	Ala	Ser
							20	25

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eolf-seql 4

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<400> 235

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20

25

<210> 236

<211> 25

<212> PRT

<213> Artificial Sequence

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<223> FR1

<400> 236

eolf-seql 4

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

1 5 10 15

Ser Ala Arg Leu Ser Cys Val Ala Ser

20 25

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<211> 25

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<400> 237

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

1 5 10 15

Ser Leu Thr Leu Ser Cys Ala Ala Ser

20 25

eolf-seql 4

<210> 238

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<400> 238

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

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<211> 25

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eolf-seql 4

<400> 239

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

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<400> 240

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

1 5 10 15

Ser Leu Lys Leu Pro Cys Ala Ala Ser

20 eolf-seql 4
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<210> 241

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

1 5 10 15

Ser Leu Gly Leu Ser Cys Ala Ala Ser

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<400> 242

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

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<400> 243

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

1 5 10 15

eolf-seql 4

Ser Leu Arg Leu Ser Cys Ala Ala Ser

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

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Ser Leu Arg Pro Ser Cys Ala Ala Ser

20

25

<210> 245

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eolf-seql 4

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<400> 245

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

1

5

10

15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20

25

<210> 246

<211> 25

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<400> 246

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

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Ser	Leu	Arg	Leu	Ser	Cys	Val	Ala	Ser
			20				25	

<210> 247

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<400> 247

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Met	Val	Gln	Pro	Gly	Gly
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Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser
			20				25	

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eolf-seql 4

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

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Ser Pro Arg Leu Ser Cys Val Ala Ser

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eolf-seql 4

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

1 5 10 15

Ser Leu Arg Pro Ser Cys Val Ala Ser

20 25

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<400> 250

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

eolf-seql 4

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Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val Ala

1

5

10

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<400> 252

Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala

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1 5

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<400> 253

Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Gly Leu Val Ala

1 5 10

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<400> 254

eolf-seql 4

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

1 5 10

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<400> 255

Trp Tyr Arg Gln Thr Pro Glu Lys Glu Arg Glu Met Val Ala

1 5 10

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<400> 256

Trp Tyr Arg Gln Ala Pro Ala Lys Glu Arg Glu Met Val Ala

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<400> 257

Trp Tyr Arg Gln Cys Pro Gly Lys Glu Arg Glu Met Val Ala

1 5 10

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Trp His Arg Gln Pro Pro Gly Lys Glu Arg Glu Lys Val Ala

1 5 10

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Trp His Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val Ala

1 5 10

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eolf-seql 4

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Trp Tyr Arg Gln Ala Pro Glu Lys Glu Arg Glu Met Val Ala

1 5 10

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<400> 261

Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Val Val Ala

1 5 10

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eolf-seql 4

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Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Gly Val Val Ala

1 5 10

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<211> 14

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<223> FR2

<400> 263

Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Met Val Thr

1 5 10

eolf-seql 4

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<400> 264

Trp Tyr Arg Gln Ala Pro Gly His Glu Arg Glu Leu Val Ala

1

5

10

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<211> 14

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

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Trp Tyr Arg Gln Ala Pro Ala Lys Glu His Glu Met Val Ala

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eolf-seql 4

Trp Tyr Arg Gln Ala Pro Ala Arg Glu Arg Glu Met Val Ala

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

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Trp Tyr Arg Gln Ala Pro Ala Lys Glu Arg Glu Met Ile Ala

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

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Trp Tyr Arg Gln Val Pro Ala Lys Glu Arg Glu Met Val Ala

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Trp Tyr Arg Gln Cys Pro Gly Lys Glu Arg Asp Met Val Ala

1 5 10

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eolf-seql 4

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

1 5 10

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Trp Tyr Cys Gln Ala Pro Gly Lys Glu Arg Glu Met Val Ala

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eolf-seql 4

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<223> FR2

<400> 275

Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Asp Met Val Ala

1 5 10

<210> 276

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> FR2

<400> 276

Trp His Arg Gln Ala Pro Ala Lys Glu Arg Glu Met Val Ala

1 5 10

eolf-seql 4

<210> 277

<211> 39

<212> PRT

<213> Artificial Sequence

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<223> FR3

<400> 277

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 278

<211> 39

<212> PRT

eolf-seql 4

<213> Artificial Sequence

<220>

<223> FR3

<400> 278

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val His Phe Cys Arg Ala

35

<210> 279

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

eolf-seql 4

<400> 279

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

1 5 10 15

Arg Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 280

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 280

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

eolf-seql 4

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 281

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 281

Tyr Ser His Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr

20 eolf-seql 4 25 30

Ala Val Tyr Phe Cys Arg Ala
35

<210> 282

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 282

Tyr Ala Asp Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala
1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Thr Ser Leu Lys Pro Glu Asp Thr
20 25 30

Ala Val Tyr Val Cys Arg Ala

35

<210> 283

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 283

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

1

5

10

15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20

25

30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 284

eolf-seql 4

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 284

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Ser Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 285

<211> 39

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> FR3

<400> 285

Tyr Ala His Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala

1

5

10

15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr

20

25

30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 286

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 286

eolf-seql 4

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Thr Ser Leu Thr Pro Glu Asp Thr

20 25 30

Ala Val Tyr Val Cys Arg Ala

35

<210> 287

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 287

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

1 5 10 15

eolf-seql 4

Lys Asn Met Val Tyr Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr

20

25

30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 288

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 288

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

1

5

10

15

Lys Asn Met Val His Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20

25

30

eolf-seql 4

Ala Val Tyr Phe Cys Arg Ala

35

<210> 289

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 289

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

1 5 10 15

Lys Asn Met Val Phe Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

eolf-seql 4

<210> 290

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 290

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 291

<211> 39

<212> PRT

eolf-seql 4

<213> Artificial Sequence

<220>

<223> FR3

<400> 291

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 292

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

eolf-seql 4

<400> 292

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Thr Ser Leu Lys Pro Glu Asp Thr

20 25 30

Thr Val Tyr Val Cys Arg Ala

35

<210> 293

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 293

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

eolf-seql 4

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Leu Cys Arg Ala

35

<210> 294

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 294

Tyr Ala Asp Ser Ala Lys Gly Arg Phe Ala Ile Ser Arg Asp Glu Ala

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 eolf-seql 4 25 30

Ala Val Tyr Phe Cys Arg Ala
35

<210> 295

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 295

Tyr Ala Asp Phe Ala Gln Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala
1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr
20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 296

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 296

Tyr Ala Glu Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro

1

5

10

15

Lys Asn Met Val His Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20

25

30

Ala Val Tyr Leu Cys Arg Ala

35

<210> 297

eolf-seql 4

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 297

Tyr Ala Asp Phe Ala Lys Gly Arg Leu Thr Ile Ser Arg Asp Glu Ala

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 298

<211> 39

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> FR3

<400> 298

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 299

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 299

eolf-seql 4

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

1 5 10 15

Arg Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Leu Tyr Phe Cys His Ala

35

<210> 300

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 300

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

1 5 10 15

eolf-seql 4

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20

25

30

Ala Ala Tyr Phe Cys Arg Ala

35

<210> 301

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 301

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

1

5

10

15

Glu Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20

25

30

eolf-seql 4

Ala Val Tyr Phe Cys Arg Ala

35

<210> 302

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 302

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

1

5

10

15

Thr Asn Met Val Tyr Leu Gln Met Thr Ser Leu Lys Pro Glu Asp Thr

20

25

30

Ala Val Tyr Phe Cys Arg Ala

35

eolf-seql 4

<210> 303

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 303

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Leu Asn Asn Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 304

<211> 39

<212> PRT

eolf-seql 4

<213> Artificial Sequence

<220>

<223> FR3

<400> 304

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Leu Asn Asn Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 305

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

eolf-seql 4

<400> 305

Tyr Ala Glu Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Leu Cys Arg Ala

35

<210> 306

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 306

Tyr Ala His Ser Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala

ecolf-seql 4

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Thr Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Val Cys Arg Ala

35

<210> 307

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 307

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 eolf-seql 4 25 30

Ala Val Tyr Phe Cys Arg Ala
35

<210> 308

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 308

Tyr Ala Asp Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala
1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr
20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 309

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 309

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

1

5

10

15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr

20

25

30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 310

eolf-seql 4

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 310

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

1 5 10 15

Lys Asn Val Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 311

<211> 39

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> FR3

<400> 311

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

1

5

10

15

Lys Asn Met Val Tyr Leu Gln Met Thr Gly Leu Lys Pro Glu Asp Thr

20

25

30

Ala Val Tyr Val Cys Arg Ala

35

<210> 312

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 312

eolf-seql 4

Tyr Ser His Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Gly Leu Arg Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 313

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 313

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

1 5 10 15

eolf-seql 4

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr

20

25

30

Ala Val Tyr Leu Cys Arg Ala

35

<210> 314

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 314

Tyr Ala Glu Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Pro

1

5

10

15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Val Asp Thr

20

25

30

eolf-seql 4

Ala Val Tyr Leu Cys Arg Ala

35

<210> 315

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 315

Tyr Ser His Phe Ala Lys Gly Arg Phe Thr Ile Ser Arg Asp Glu Ala

1

5

10

15

Lys Asn Met Val Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Thr

20

25

30

Ala Val Tyr Phe Cys Arg Ala

35

eolf-seql 4

<210> 316

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 316

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Ala

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 317

<211> 39

<212> PRT

eolf-seql 4

<213> Artificial Sequence

<220>

<223> FR3

<400> 317

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Ala

20 25 30

Ala Val Tyr Leu Cys Arg Ala

35

<210> 318

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

eolf-seql 4

<400> 318

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

1 5 10 15

Lys Asn Met Val Tyr Leu Gln Met Asp Ser Leu Lys Pro Glu Asp Thr

20 25 30

Ala Val Tyr Phe Cys Arg Ala

35

<210> 319

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> FR3

<400> 319

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

eolf-seql 4
10

1 5 15

Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Gly Asp Thr
20 25 30

Ala Val Tyr Phe Cys Arg Ala
35

<210> 320

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> FR4

<400> 320

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 321

eolf-seql 4

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> FR4

<400> 321

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

1 5 10

<210> 322

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> FR4

<400> 322

Trp Gly Arg Gly Thr Gln Val Thr Val Ser Ser

1 5 10

eolf-seql 4

<210> 323

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> FR4

<400> 323

Trp Gly His Gly Thr Leu Val Thr Val Ser Ser

1

5

10

<210> 324

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> FR4

<400> 324

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser

1	5	eolf-seql 4 10
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<210> 325

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 325

Gly Gly Gly Gly Ser

1	5
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<210> 326

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 326

Ser Gly Gly Ser Gly Gly Ser

1 5

<210> 327

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 327

Gly Gly Gly Gly Ser Gly Gly Gly Ser

1 5

<210> 328

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

eolf-seql 4

<400> 328

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

1 5 10

<210> 329

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 329

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

1 5 10 15

<210> 330

<211> 18

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Linker sequence

<400> 330

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

1

5

10

15

Gly Ser

<210> 331

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 331

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

1

5

10

15

eolf-seql 4

Gly Gly Gly Ser

20

<210> 332

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 332

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

20

25

<210> 333

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 333

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
			20					25					30

<210> 334

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 334

Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

eolf-seql 4
10

1 5 15

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

Gly Gly Ser
35

<210> 335

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker sequence

<400> 335

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 eolf-seql 4 25 30

Gly Gly Ser Gly Gly Gly Gly Ser
35 40

<210> 336

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker Sequence

<400> 336

Ala Ala Ala

1

<210> 337

<211> 303

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 337

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
20 25 30

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

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

eolf-seql 4
90

85

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

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

Ser Gly Asp Val His Lys Ile Asn Phe Leu Gly Trp Tyr Arg Gln Ala
180 185 190

eolf-seql 4

Pro Gly Lys Glu Arg Glu Lys Val Ala His Ile Ser Ile Gly Asp Gln

195

200

205

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

210

215

220

Glu Ser Lys Asn Met Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225

230

235

240

Asp Thr Ala Val Tyr Phe Cys Arg Ala Phe Ser Arg Ile Tyr Pro Tyr

245

250

255

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

260

265

270

Asp Tyr Lys Asp His Asp Gly Asp Tyr Lys Asp His Asp Ile Asp Tyr

275

280

285

Lys Asp Asp Asp Asp Lys Gly Ala Ala His His His His His His

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eolf-seql 4
          300
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<210> 338

<211> 418

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Nanobody Sequence

<400> 338

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

eolf-seql 4
60

50

55

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65

70

75

80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

115

120

125

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

130

135

140

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

145

150

155

160

eolf-seql 4

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

165

170

175

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

180

185

190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

195

200

205

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

210

215

220

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225

230

235

240

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

245

250

255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

eolf-seql 4

260

265

270

Gly Gly Gly Gly 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 Glu Val

290

295

300

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

305

310

315

320

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

325

330

335

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser

340

345

350

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

355

360

365

eolf-seql 4

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln

370

375

380

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile

385

390

395

400

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser

405

410

415

Ser Ala

<210> 339

<211> 578

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 339

eolf-seql 4

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65 70 75 80

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85 90 95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

eolf-seql 4

100

105

110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

115

120

125

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

130

135

140

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

145

150

155

160

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

165

170

175

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

180

185

190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

195

200

205

eolf-seql 4

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

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

Asp	Thr	Thr	Val	Tyr	Tyr	Cys	Asn	Thr	Phe	Pro	Pro	Ile	Ser	Asn	Phe
			245					250					255		

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

Gly	Gly	Gly	Gly	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	Glu	Val
		290					295				300				

Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Ala	Gly	Gly	Pro	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

eolf-seql 4

305 310 315 320

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

325 330 335

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

340 345 350

Ile Tyr Trp Ser Asn Gly Lys Thr Gln Tyr Thr Asp Ser Val Lys Gly

355 360 365

Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln

370 375 380

Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala

385 390 395 400

Asp Lys Asp Glu Thr Gly Phe Arg Thr Leu Pro Ile Ala Tyr Asp Tyr

405 410 415

eolf-seql 4

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

420

425

430

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

435

440

445

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val

450

455

460

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

465

470

475

480

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

485

490

495

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser

500

505

510

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

515 eolf-seql 4 525
520

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
530 535 540

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
545 550 555 560

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser
565 570 575

Ser Ala

<210> 340

<211> 578

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

eolf-seql 4

<400> 340

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
20 25 30

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

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys
50 55 60

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

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

eolf-seql 4

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

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

Ser Gly Ile Thr Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr
180 185 190

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

eolf-seql 4

195 200 205

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

210 215 220

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

225 230 235 240

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe

245 250 255

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

260 265 270

Gly Gly Gly Gly 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 Glu Val

290 295 300

eolf-seql 4

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

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

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

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

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
 370 375 380

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
 385 390 395 400

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser

eolf-seql 4
410

405

415

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
420 425 430

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
435 440 445

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
450 455 460

Gln Ala Gly Gly Pro Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
465 470 475 480

Phe Ser Ser Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
485 490 495

Arg Glu Phe Val Ala Ala Ile Tyr Trp Ser Asn Gly Lys Thr Gln Tyr
500 505 510

eolf-seql 4

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

515

520

525

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala

530

535

540

Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly Phe Arg Thr Leu

545

550

555

560

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

565

570

575

Ser Ala

<210> 341

<211> 578

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 341

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn
20 25 30

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

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

eolf-seql 4
90

85

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

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

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

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

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

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

eolf-seql 4

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

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

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

Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly
245 250 255

Phe Arg Thr Leu Pro Ile Ala 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

eolf-seql 4
300

290

295

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 Ser Lys Ile Asn Asp Met Gly Trp Tyr Arg Gln Thr

340

345

350

Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser Ile Thr Ala Thr Gly Thr

355

360

365

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

370

375

380

Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu

385

390

395

400

eolf-seql 4

Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe Pro Pro Ile Ser Asn Phe
405 410 415

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
420 425 430

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
435 440 445

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
450 455 460

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu
465 470 475 480

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met
485 490 495

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser

500 eolf-seql 4 505 510

Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly
515 520 525

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
530 535 540

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
545 550 555 560

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser
565 570 575

Ser Ala

<210> 342

<211> 578

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 342

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

1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Asp Val His Lys Ile Asn

20 25 30

Phe Leu Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Lys Val

35 40 45

Ala His Ile Ser Ile Gly Asp Gln Thr Asp Tyr Ala Asp Ser Ala Lys

50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Glu Ser Lys Asn Met Val Tyr Leu

65 70 75 80

eolf-seql 4

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Arg

85

90

95

Ala Phe Ser Arg Ile Tyr Pro Tyr Asp Tyr Trp Gly Gln Gly Thr Leu

100

105

110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly

115

120

125

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

130

135

140

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

145

150

155

160

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

165

170

175

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

eolf-seql 4

180

185

190

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Tyr Trp Ser Asn Gly

195

200

205

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

210

215

220

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Asn Pro

225

230

235

240

Glu Asp Thr Ala Val Tyr Tyr Cys Val Ala Asp Lys Asp Glu Thr Gly

245

250

255

Phe Arg Thr Leu Pro Ile Ala 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

eolf-seql 4

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 Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
325 330 335

Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala
340 345 350

Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
355 360 365

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

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro

eolf-seql 4

385 390 395 400

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg

405 410 415

Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser

420 425 430

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

435 440 445

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val

450 455 460

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

465 470 475 480

Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Ser Lys Ile Asn Asp Met

485 490 495

eolf-seql 4

Gly Trp Tyr Arg Gln Thr Pro Gly Asn Tyr Arg Glu Trp Val Ala Ser

500

505

510

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

515

520

525

Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Thr Val Tyr Leu Gln Met

530

535

540

Asn Ser Leu Lys Pro Glu Asp Thr Thr Val Tyr Tyr Cys Asn Thr Phe

545

550

555

560

Pro Pro Ile Ser Asn Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser

565

570

575

Ser Ala

<210> 343

eolf-seql 4

<211> 107

<212> PRT

<213> Homo sapiens

<400> 343

Ile Gln Val Glu Gln Ser Pro Pro Asp Leu Ile Leu Gln Glu Gly Ala

1 5 10 15

Asn Ser Thr Leu Arg Cys Asn Phe Ser Asp Ser Val Asn Asn Leu Gln

20 25 30

Trp Phe His Gln Asn Pro Trp Gly Gln Leu Ile Asn Leu Phe Tyr Ile

35 40 45

Pro Ser Gly Thr Lys Gln Asn Gly Arg Leu Ser Ala Thr Thr Val Ala

50 55 60

Thr Glu Arg Tyr Ser Leu Leu Tyr Ile Ser Ser Ser Gln Thr Thr Asp

65 70 75 80

eolf-seql 4

Ser Gly Val Tyr Phe Cys Ala Ala Leu Ile Gln Gly Ala Gln Lys Leu

85

90

95

Val Phe Gly Gln Gly Thr Arg Leu Thr Ile Asn

100

105

<210> 344

<211> 110

<212> PRT

<213> Homo sapiens

<400> 344

Asn Ala Gly Val Thr Gln Thr Pro Lys Phe Arg Ile Leu Lys Ile Gly

1

5

10

15

Gln Ser Met Thr Leu Gln Cys Thr Gln Asp Met Asn His Asn Tyr Met

20

25

30

Tyr Trp Tyr Arg Gln Asp Pro Gly Met Gly Leu Lys Leu Ile Tyr Tyr

35

40

45

eolf-seql 4

Ser Val Gly Ala Gly Ile Thr Asp Lys Gly Glu Val Pro Asn Gly Tyr

50

55

60

Asn Val Ser Arg Ser Thr Thr Glu Asp Phe Pro Leu Arg Leu Glu Leu

65

70

75

80

Ala Ala Pro Ser Gln Thr Ser Val Tyr Phe Cys Ala Ser Thr Tyr His

85

90

95

Gly Thr Gly Tyr Phe Gly Glu Gly Ser Trp Leu Thr Val Val

100

105

110

<210> 345

<211> 110

<212> PRT

<213> Homo sapiens

<400> 345

Gly Asp Ala Lys Thr Thr Gln Pro Asn Ser Met Glu Ser Asn Glu Glu

1

5

10

15

eolf-seql 4

Glu Pro Val His Leu Pro Cys Asn His Ser Thr Ile Ser Gly Thr Asp

20

25

30

Tyr Ile His Trp Tyr Arg Gln Leu Pro Ser Gln Gly Pro Glu Tyr Val

35

40

45

Ile His Gly Leu Thr Ser Asn Val Asn Asn Arg Met Ala Ser Leu Ala

50

55

60

Ile Ala Glu Asp Arg Lys Ser Ser Thr Leu Ile Leu His Arg Ala Thr

65

70

75

80

Leu Arg Asp Ala Ala Val Tyr Tyr Cys Thr Val Tyr Gly Gly Ala Thr

85

90

95

Asn Lys Leu Ile Phe Gly Thr Gly Thr Leu Leu Ala Val Gln

100

105

110

eolf-seql 4

<210> 346

<211> 114

<212> PRT

<213> Homo sapiens

<400> 346

Val Val Ser Gln His Pro Ser Trp Val Ile Ala Lys Ser Gly Thr Ser

1 5 10 15

Val Lys Ile Glu Cys Arg Ser Leu Asp Phe Gln Ala Thr Thr Met Phe

20 25 30

Trp Tyr Arg Gln Phe Pro Lys Gln Ser Leu Met Leu Met Ala Thr Ser

35 40 45

Asn Glu Gly Ser Lys Ala Thr Tyr Glu Gln Gly Val Glu Lys Asp Lys

50 55 60

Phe Leu Ile Asn His Ala Ser Leu Thr Leu Ser Thr Leu Thr Val Thr

65 70 75 80

eolf-seql 4

Ser Ala His Pro Glu Asp Ser Ser Phe Tyr Ile Cys Ser Ala Arg Gly

85

90

95

Gly Ser Tyr Asn Ser Pro Leu His Phe Gly Asn Gly Thr Arg Leu Thr

100

105

110

Val Thr

<210> 347

<211> 96

<212> PRT

<213> Macaca fascicularis

<400> 347

Pro Tyr Ile Gln Asn Pro Asp Pro Ala Val Tyr Gln Leu Arg Gly Ser

1

5

10

15

Lys Ser Asn Asp Thr Ser Val Cys Leu Phe Thr Asp Phe Asp Ser Val

20

25

30

eolf-seql 4

Met Asn Val Ser Gln Ser Lys Asp Ser Asp Val His Ile Thr Asp Lys

35

40

45

Thr Val Leu Asp Met Arg Ser Met Asp Phe Lys Ser Asn Gly Ala Val

50

55

60

Ala Trp Ser Asn Lys Ser Asp Phe Ala Cys Thr Ser Ala Phe Lys Asp

65

70

75

80

Ser Val Ile Pro Ala Asp Thr Phe Phe Pro Ser Pro Glu Ser Ser Cys

85

90

95

<210> 348

<211> 131

<212> PRT

<213> Macaca mulatta

<400> 348

Glu Asp Leu Lys Lys Val Phe Pro Pro Lys Val Ala Val Phe Glu Pro

ecolf-seql 4

1	5	10	15
Ser	Glu	Ala	Glu
Ile	Ser	His	Thr
Gln	Lys	Ala	Thr
Leu	Val	Cys	Leu
20	25	30	
Ala	Thr	Gly	Phe
Tyr	Pro	Asp	His
Val	Glu	Leu	Ser
Trp	Trp	Val	Asn
35	40	45	
Gly	Lys	Glu	Val
His	Ser	Gly	Val
Ser	Thr	Asp	Pro
Gln	Pro	Leu	Lys
50	55	60	
Glu	Gln	Pro	Ala
Leu	Glu	Asp	Ser
Arg	Tyr	Ser	Leu
Ser	Ser	Arg	Leu
65	70	75	80
Arg	Val	Ser	Ala
Thr	Phe	Trp	His
Asn	Pro	Arg	Asn
His	Phe	Arg	Cys
85	90	95	
Gln	Val	Gln	Phe
Tyr	Gly	Leu	Ser
Glu	Asp	Asp	Glu
Trp	Thr	Glu	Asp
100	105	110	

eolf-seql 4

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

115

120

125

Ala Asp Cys

130

<210> 349

<211> 107

<212> PRT

<213> Macaca mulatta

<400> 349

Gln Gln Ile Met Gln Ile Pro Gln Tyr Gln His Val Gln Glu Gly Glu

1

5

10

15

Asp Phe Thr Thr Tyr Cys Asn Ser Ser Thr Thr Leu Ser Asn Ile Gln

20

25

30

Trp Tyr Lys Gln Arg Pro Gly Gly His Pro Val Phe Leu Ile Met Leu

35

40

45

eolf-seql 4

Val Lys Ser Gly Glu Val Lys Lys Gln Lys Arg Leu Ile Phe Gln Phe

50

55

60

Gly Glu Ala Lys Lys Asn Ser Ser Leu His Ile Thr Ala Thr Gln Thr

65

70

75

80

Thr Asp Val Gly Thr Tyr Phe Cys Ala Thr Thr Gly Val Asn Asn Leu

85

90

95

Phe Phe Gly Thr Gly Thr Arg Leu Thr Val Leu

100

105

<210> 350

<211> 118

<212> PRT

<213> Macaca mulatta

<400> 350

Ala Gly Pro Val Asn Ala Gly Val Thr Gln Thr Pro Lys Phe Gln Val

eolf-seql 4
10

1 5 15

Leu Lys Thr Gly Gln Ser Met Thr Leu Gln Cys Ala Gln Asp Met Asn
20 25 30

His Asp Tyr Met Tyr Trp Tyr Arg Gln Asp Pro Gly Met Gly Leu Arg
35 40 45

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

Pro Asp Gly Tyr Asn Val Thr Arg Ser Asn Thr Glu Asp Phe Pro Leu
65 70 75 80

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

Ser Ser Tyr Trp Thr Gly Arg Ser Tyr Glu Gln Tyr Phe Gly Pro Gly
100 105 110

eolf-seql 4

Thr Arg Leu Thr Val Ile

115

<210> 351

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 351

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

eolf-seql 4

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

115

<210> 352

<211> 116

<212> PRT

<213> Artificial Sequence

eolf-seql 4

<220>

<223> Nanobody Sequence

<400> 352

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val 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 Thr Tyr Tyr Cys

85 eolf-seql 4 95
90

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

Val Ser Ser Ala
115

<210> 353

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 353

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 Phe Thr Phe Arg Ser Phe

eolf-seql 4

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 Thr 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 Ala

115

eolf-seql 4

<210> 354

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 354

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

eolf-seql 4

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

115

<210> 355

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 355

eolf-seql 4

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 Lys

100 eolf-seql 4 105 110

Val Ser Ser Ala

115

<210> 356

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 356

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val 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

eolf-seql 4

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 Leu 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

115

<210> 357

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 357

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val 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

eolf-seql 4

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu 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 Ala

115

<210> 358

<211> 117

<212> PRT

<213> Artificial Sequence

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<400> 358

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

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eolf-seql 4

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 Leu 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 Ala Ala

115

<210> 359

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 359

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

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

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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

eolf-seql 4
60

50

55

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 Leu 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 Ala Ala Ala

115

<210> 360

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

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eolf-seql 4

<400> 360

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val 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 Leu Tyr Tyr Cys
85 90 95

eolf-seql 4

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr

100

105

110

Val Ser Ser Gly

115

<210> 361

<211> 117

<212> PRT

<213> Artificial Sequence

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<223> Nanobody Sequence

<400> 361

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

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15

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

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25

30

eolf-seql 4

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 Leu 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 Gly Gly

115

<210> 362

eolf-seql 4

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Nanobody Sequence

<400> 362

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val 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

eolf-seql 4
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1 5

<210> 364

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR1

<400> 364

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser

1 5 10

<210> 365

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR2

<400> 365

eolf-seql 4

Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu

1 5 10

<210> 366

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR3

<400> 366

Gly Gly Ser Leu Ser Arg

1 5

<210> 367

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Myc-Tag

eolf-seql 4

<400> 367

Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala

1

5

10

15

Ala

<210> 368

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR1

<220>

<221> VARIANT

<222> 2

<223> Xaa is D, A, S, E or G

<220>

<221> VARIANT

<222> 4

<223> Xaa is H or Y

<220>

<221> VARIANT

<222> 5

<223> Xaa is K or L

<220>

<221> VARIANT

<222> 6

<223> Xaa is I or L

<220>

<221> VARIANT

<222> 8

<223> Xaa is F, I or V

<220>

<221> VARIANT

<222> 10

<223> Xaa is G or S

<400> 368

Gly Xaa Val Xaa Xaa Xaa Asn Xaa Leu Xaa

1

5

10

<210> 369

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR2

<220>

<221> VARIANT

<222> 1

<223> Xaa is H, T or R

<220>

<221> VARIANT

<222> 3

<223> Xaa is S, T or A

<220>

<221> VARIANT

<222> 5

<223> G, S or A

<220>

eolf-seql 4

<221> VARIANT

<222> 7

<223> Xaa is Q, D, E, T, A or V

<220>

<221> VARIANT

<222> 8

<223> Xaa is T, A or V

<220>

<221> VARIANT

<222> 9

<223> Xaa is D, A, Q, N, V or S

<400> 369

Xaa Ile Xaa Ile Xaa Asp Xaa Xaa Xaa

1

5

<210> 370

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR3

<220>

<221> VARIANT

<222> 1

<223> Xaa is F, Y, G, L or K

<220>

<221> VARIANT

<222> 4

<223> Xaa is I or L

<220>

<221> VARIANT

<222> 5

<223> Xaa is Y or W

<220>

<221> VARIANT

<222> 8

<223> Xaa is D, N or S

<400> 370

Xaa Ser Arg Xaa Xaa Pro Tyr Xaa Tyr

1

5

eolf-seql 4