SEQUENCE LISTING

<110> Ablynx N.V.

<120> Improved Nanobodies™ against Tumor Necrosis Factor-alpha

<130> ABL-027-PCT

<140> PCT/EP2006/004678
<141> 2006-05-17

<150> 60/682,332
<151> 2005-05-18

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<170> PatentIn version 3.3

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

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<400> 3

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

Met Asn Ser Leu Xaa Xaa Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
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<400> 4

Xaa Xaa Gln Gly Thr Xaa Val Thr Val Ser Ser
1 5 10

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<400> 5

Gln Val Gln Leu Gln 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
20 25

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<400> 6

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

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<400> 7

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala
1 5 10

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<400> 8

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Ala
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<400> 9

Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

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<400> 10

Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Phe Val Ala
1 5 10

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Trp Tyr Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ala
1 5 10

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<400> 12

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

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

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<400> 13

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

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Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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<400> 15

Asp Tyr Trp Met Tyr
1 5

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<400> 16

Glu Pro Ser Gly Tyr Thr Tyr Thr Ile Gly
1 5 10

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<400> 17

Asn Tyr Tyr Met Gly
1 5

<210> 18
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<400> 18

Val Ser Trp Met Tyr
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<400> 19

Ala His Ser Val Tyr Thr Met Gly
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<400> 20

Gly Tyr Tyr Met Gly
1 5

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<400> 21

Asp Tyr Ser Gly Tyr Thr Tyr Thr Val Gly
1 5 10

<210> 22
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<400> 22

Glu Ile Asn Thr Asn Gly Leu Ile Thr Lys Tyr Pro Asp Ser Val Lys
1 5 10 15

Gly

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<400> 23

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

Gly

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<400> 24

Asn Ile Ser Trp Arg Gly Tyr Asn Ile Tyr Tyr Lys Asp Ser Val Lys

1 5 10 15

Gly

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<400> 25

Glu Ile Asn Thr Asn Gly Leu Ile Thr Lys Tyr Val Asp Ser Val Lys
1 5 10 15

Gly

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<400> 26

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

Gly

<210> 27
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<220>
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<400> 27

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

Gly

<210> 28
<211> 17
<212> PRT
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<220>
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<400> 28

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

Gly

<210> 29
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<212> PRT
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<400> 29

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Gly Ser Tyr Asn Tyr
1 5 10 15

<210> 30
<211> 14
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<400> 30

Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Tyr
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<210> 31
<211> 15
<212> PRT
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<400> 31

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Glu Ala Tyr Asn Tyr
1 5 10 15

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<400> 32

Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Asn
1 5 10

<210> 33
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<400> 33

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Glu Ser Tyr Asn Tyr
1 5 10 15

<210> 34
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<400> 34

Ser Pro Ser Gly Phe Asn
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<400> 35

Ser Pro Ser Gly Ser Phe
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<400> 36

Ser Phe Gly Met Ser
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<400> 37

Leu Asn Leu Met Gly
1 5

<210> 38
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<400> 38

Ile Asn Leu Leu Gly
1 5

<210> 39
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<400> 39

Asn Tyr Trp Met Tyr
1 5

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<400> 40

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

Gly

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<400> 41

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

<210> 42
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<400> 42

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

1 5 10 15

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<213> Artificial

<220>
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<400> 43

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

Gly

<210> 44
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<400> 44

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

Gly

<210> 45
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<400> 45

Ala Ile Ser Ala Asp Ser Ser Asp Lys Arg Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

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<400> 46

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

Gly

<210> 47
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<400> 47

Asp Arg Glu Ala Gln Val Asp Thr Leu Asp Phe Asp Tyr
1 5 10

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<400> 48

Gly Gly Ser Leu Ser Arg
1 5

<210> 49
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<400> 49

Arg Arg Thr Trp His Ser Glu Leu
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<400> 50

Gly Arg Ser Val Ser Arg Ser
1 5

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<400> 51

Gly Arg Gly Ser Pro
1 5

<210> 52
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<220>
<223> nanobody

<400> 52

Gln 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 Phe Thr Phe Ser Asp Tyr
20 25 30

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

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

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

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

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

Val Ser Ser
115

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<212> PRT
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<400> 53

Gln Val Gln Leu Gln 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 Phe Asp Phe Gly Val Ser
20 25 30

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

```
Ser Glu Ile Asn Thr Asn Gly Leu Ile Thr Lys Tyr Pro 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 Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95

Ala Arg Ser Pro Ser Gly Ser Phe Arg Gly Gln Gly Thr Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
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<210> 54
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<400> 54

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

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

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

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

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

Ala Arg Ser Pro Ser Gly Ser Phe Arg Gly Gln Gly Thr Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
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<210> 55
<211> 129
<212> PRT
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<220>
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<400> 55

Gln 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 Glu Pro
20 25 30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser

<210> 56
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 56

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

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

Ser Gly Tyr Thr Tyr Thr Val Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser

<210> 57
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<400> 57

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

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

Ser Gly Tyr Thr Tyr Thr Val Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser

<210> 58
<211> 127
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<220>
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<400> 58

Ala Val Gln Leu Val Asp 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 Ala His
20 25 30

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

Glu Phe Val Ala Arg Ile Tyr Trp Ser Ser Ala Asn Thr Tyr Tyr Ala
50 55 60

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

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

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

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

<210> 59
<211> 123
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 59

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

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

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn Thr Ile 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 Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Asn
            100                 105                 110

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
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<400> 60

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

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

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

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

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

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

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
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<400> 61

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

Ser Leu Arg Leu Ala Cys Ala Ala Ser Glu Arg Ile Phe Asp Leu Asn
            20                  25                  30
```

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

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

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

Leu His Met Asn Ser Leu Arg Pro Glu Asp Thr Gly Leu Tyr Tyr Cys
                85                  90                  95

Lys Ile Arg Arg Thr Trp His Ser Glu Leu Trp Gly Gln Gly Thr Gln
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 62
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<212> PRT
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<220>
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<400> 62

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

Ser Leu Arg Leu Ala Cys Ala Ala Ser Glu Arg Ile Trp Asp Ile Asn
            20                  25                  30

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

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

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

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

Ile Arg Arg Thr Trp His Ser Glu Leu Trp Gly Gln Gly Thr Gln Val
            100                 105                 110

Thr Val Ser Ser
        115
```

<210> 63
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<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 63

Ala 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 Arg Ser Phe
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu 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 Ala Lys Thr Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys 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 Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 64
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<400> 64

Ala Val Gln Leu Val Asp 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 Ser Phe Gly Ser Phe
20 25 30

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

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

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

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

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

Thr Val Ser Ser
        115
```

<210> 65
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<400> 65

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

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

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

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

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

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

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

Ser Ser
```

<210> 66
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<400> 66

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

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

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

Ser Ala Ile Ser Ala Asp Ser Ser Asp Lys Arg Tyr Ala Asp Ser Val
    50                  55                  60

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

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

Val Ile Gly Arg Gly Ser Pro Ala Ser Gln Gly Thr Gln Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 67
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<400> 67

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Gln 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 Phe Thr Phe Ser Asn Tyr
            20                  25                  30

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

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

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

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

Cys Ala Lys Asp Arg Glu Ala Gln Val Asp Thr Leu Asp Phe Asp Tyr
            100                 105                 110

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
```

<210> 68
<211> 9
<212> PRT
<213> Artificial

<220>
<223> linker

<400> 68

Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5

<210> 69
<211> 30
<212> PRT
<213> Artificial

<220>
<223> linker

<400> 69

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> 70
<211> 239
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 70

Gln 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 Phe Thr Phe Ser Asp Tyr
20 25 30

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

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

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

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

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gln Val Gln Leu
115 120 125

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

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr Trp Met Tyr Trp
145 150 155 160

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

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

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

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

Ser Gly Phe Asn Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
225 230 235

<210> 71
<211> 267
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 71

Gln 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 Glu Pro
20 25 30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

100 105 110

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

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

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

Ala Ala Ser Gly Arg Thr Phe Ser Glu Pro Ser Gly Tyr Thr Tyr Thr
165 170 175

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

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

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

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

Ala Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Gly Ser Tyr Asn Tyr
245 250 255

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

<210> 72
<211> 255
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 72

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

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

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

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

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

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

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

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

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

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

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

Arg Glu Leu Leu Gly Asn Ile Ser Trp Arg Gly Tyr Asn Ile Tyr Tyr
            180                 185                 190

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

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

Val Tyr Tyr Cys Ala Ala Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly
225                 230                 235                 240

Trp Asn Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255


<210>  73
<211>  260
<212>  PRT
<213>  Artificial

<220>
<223>  nanobody construct

<400>  73

Gln 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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

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

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

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

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

Tyr Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
            180                 185                 190

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

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

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

Cys Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Gln Val
                245                 250                 255

Thr Val Ser Ser
            260
```

<210> 74
<211> 288
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 74

```
Gln 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 Glu Pro
            20                  25                  30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
        35                  40                  45

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

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

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

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

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

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

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

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

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

Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
        195                 200                 205

Arg Glu Phe Val Ala Arg Ile Tyr Trp Ser Ser Gly Leu Thr Tyr Tyr
    210                 215                 220

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

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

Val Tyr Tyr Cys Ala Ala Arg Asp Gly Ile Pro Thr Ser Arg Ser Val
            260                 265                 270

Gly Ser Tyr Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        275                 280                 285
```

<210> 75
<211> 276
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 75

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

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

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

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

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

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

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

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

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

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

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

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

Ala Pro Gly Lys Glu Arg Glu Leu Leu Gly Asn Ile Ser Trp Arg Gly
195 200 205

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

Arg Asp Asp Ala Lys Asn Thr Ile Tyr Leu Gln Met Asn Arg Leu Lys
225 230 235 240

```
Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Ser Ile Leu Pro Leu
                245                 250                 255

Ser Asp Asp Pro Gly Trp Asn Thr Tyr Trp Gly Gln Gly Thr Gln Val
            260                 265                 270

Thr Val Ser Ser
        275
```

<210> 76
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 76

```
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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu 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 Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 77
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 77

```
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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

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

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

Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 78
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Arg Thr Phe Ser Glu Pro
            20                  25                  30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
        35                  40                  45

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

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

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

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

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

Ser

<210> 79
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Phe Thr Phe Ser Glu Pro
20 25 30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser

<210> 80
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 80

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 Arg Thr Phe Ser Glu Pro
20 25 30

```
Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
        35                  40                  45

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

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

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

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

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

Ser
```

<210> 81
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Arg Thr Phe Ser Glu Pro
            20                  25                  30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
        35                  40                  45

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

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

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

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

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

Ser

<210> 82
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 82

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 Arg Thr Phe Ser Glu Pro
20 25 30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser

<210> 83
<211> 123
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Arg Ser Leu Ser Asn Tyr
20 25 30

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

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

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

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

<210> 84
<211> 123
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20                  25                  30

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

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

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

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

<210> 85
<211> 123

<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 85

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 Arg Ser Leu Ser Asn Tyr
20 25 30

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

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

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

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

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

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

<210> 86
<211> 123
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Ala Ala Ser Gly Arg Ser Leu Ser Asn Tyr
20 25 30

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

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

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

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

<210> 87
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 87

```
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 Phe Thr Phe Arg Ser Phe
            20                  25                  30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu 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 Ala Lys Thr Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys 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 Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 88
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Phe Thr Phe Ser Ser Phe
            20                  25                  30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu 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 Ala Lys Thr Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys 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 Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 89
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 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 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 Lys 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 Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 90
<211> 363
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 90

```
Gln 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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

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

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

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
        115                 120                 125

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu
    130                 135                 140

Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp
145                 150                 155                 160

Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser
                165                 170                 175

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

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

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

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

```
Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
                245                 250                 255

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
            260                 265                 270

Ser Gly Phe Thr Phe Ser Asp Tyr Trp Met Tyr Trp Val Arg Gln Ala
        275                 280                 285

Pro Gly Lys Gly Leu Glu Trp Val Ser Glu Ile Asn Thr Asn Gly Leu
    290                 295                 300

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

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

Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg Ser Pro Ser Gly Phe Asn
            340                 345                 350

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        355                 360
```

<210> 91
<211> 391
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 91

```
Gln 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 Glu Pro
            20                  25                  30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
        35                  40                  45

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

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

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

Ala Val Tyr Tyr Cys Ala Ala Arg Asp Gly Ile Pro Thr Ser Arg Ser
```

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            100                 105                 110

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

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

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

Ala Ala Ser Gly Arg Thr Phe Ser Glu Pro Ser Gly Tyr Thr Tyr Thr
                165                 170                 175

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

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

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

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

Ala Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Gly Ser Tyr Asn Tyr
                245                 250                 255

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
            260                 265                 270

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

Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
    290                 295                 300

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

Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr
                325                 330                 335

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

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

Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly
    370                 375                 380
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Thr Gln Val Thr Val Ser Ser
385 390

<210> 92
<211> 379
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 92

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

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

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

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

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

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

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

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

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

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

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

Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr
180 185 190

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

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

```
    210                 215                 220

Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly
225                 230                 235                 240

Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
                245                 250                 255

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

Ser Leu Ser Leu Ser Cys Ser Ala Ser Gly Arg Ser Leu Ser Asn Tyr
        275                 280                 285

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

Gly Asn Ile Ser Trp Arg Gly Tyr Asn Ile Tyr Tyr Lys Asp Ser Val
305                 310                 315                 320

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

Leu Gln Met Asn Arg Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
            340                 345                 350

Ala Ala Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Tyr
        355                 360                 365

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375
```

<210> 93
<211> 384
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 93

```
Gln 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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

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

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

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

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

Tyr Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
            180                 185                 190

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

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

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

Cys Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Gln Val
                245                 250                 255

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
            260                 265                 270

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
        275                 280                 285

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

Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile
305                 310                 315                 320

Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg
                325                 330                 335

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

340 345 350

Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
355 360 365

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

<210> 94
<211> 400
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 94

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

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

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

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

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

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

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

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

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

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

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

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

```
Ala Pro Gly Lys Glu Arg Glu Leu Leu Gly Asn Ile Ser Trp Arg Gly
        195                 200                 205

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

Arg Asp Asp Ala Lys Asn Thr Ile Tyr Leu Gln Met Asn Arg Leu Lys
225                 230                 235                 240

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

Ser Asp Asp Pro Gly Trp Asn Thr Tyr Trp Gly Gln Gly Thr Gln Val
            260                 265                 270

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        275                 280                 285

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

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser
305                 310                 315                 320

Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile
                325                 330                 335

Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg
            340                 345                 350

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        355                 360                 365

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

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


<210>  95
<211>  115
<212>  PRT
<213>  Artificial

<220>
<223>  nanobody construct

<400>  95

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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30
```

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu 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 Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 96
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 96

```
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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala 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

Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 97
<211> 129

<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 97

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 Phe Thr Phe Ser Glu Pro
20 25 30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser

<210> 98
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Phe Thr Phe Ser Glu Pro
20 25 30

Ser Gly Tyr Thr Tyr Thr Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys
35 40 45

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

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

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

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

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

Ser
```

<210> 99
<211> 123
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<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 Arg Ser Leu Ser Asn Tyr
            20                  25                  30

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

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

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

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

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

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

<210> 100
<211> 115
<212> PRT
<213> Artificial

<220>

<223> nanobody construct

<400> 100

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 Arg 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 Lys 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> 101
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 101

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 Arg Ser Phe
20 25 30

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

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

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

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

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

Val Ser Ser
115

<210> 102
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 102

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

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

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

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

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

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

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

Val Ser Ser
115

<210> 103
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 103

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 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> 104
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 104

```
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 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 Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 105
<211> 130
<212> PRT

<213> Artificial

<220>
<223> nanobody

<400> 105

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 Gln Ile Ile Phe Gly Ser His
20 25 30

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

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

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

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

Thr Ala Val Tyr Tyr Cys Ala Ala Ala Pro Tyr Arg Gly Gly Arg Asp
100 105 110

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

Thr Val
130

<210> 106
<211> 122
<212> PRT
<213> Artificial

<220>
<223> nanobody

<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 Lys Asn Ala Gly Ser Thr Ser Asn Ala Tyr
20 25 30

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

Ala Gly Ile Gln Trp Ser Gly Gly Asp Ala Phe Tyr Arg Asn Ser Val
50 55 60

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

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

Gln Lys Leu Ser Pro Tyr Tyr Asn Asp Phe Asp Ser Ser Asn Tyr Glu
100 105 110

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

<210> 107
<211> 119
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 107

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 Val Ser Gly Gln Leu Phe Ser Thr Asn
20 25 30

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

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

Gly Arg Phe Val Ile Ser Arg Glu Gly Glu Met Val Tyr Leu Glu Met
65 70 75 80

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

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

Thr Gln Val Thr Val Ser Ser
115

<210> 108
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 108

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 Val Ser Gly Phe Thr Phe Ser Thr Thr
20 25 30

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

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

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

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

Gly Arg Arg Gly Tyr Gly Arg Asp Arg Ser Lys Gly Ile Gln Val Thr
100 105 110

Val Ala Ser
115

<210> 109
<211> 121
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 109

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

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

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

Ala Gly Val Gly Tyr Asp Gly Ser Ser Ile Arg Tyr Ala Glu Ser Val
50 55 60

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

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

Thr Ala Glu Pro Ile Gly Ala Tyr Glu Gly Leu Trp Thr Tyr Trp Gly
100 105 110

Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 110
<211> 124
<212> PRT
<213> Artificial

<220>
<223> nanobody

<220>
<221> misc_feature
<222> (1)..(4)
<223> unknown amino acid residues, probably EVQL, QVQL or a similar sequence

<400> 110

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

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

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

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

Ala Gly Ser Tyr Ser Asn Gly Asn Pro His Arg Phe Ser Gln Tyr Gln
100 105 110

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

<210> 111
<211> 120
<212> PRT
<213> Artificial

<220>
<223> nanobody

<220>
<221> MISC_FEATURE
<222> (77)..(77)
<223> Unknown amino acid residue

<400> 111

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

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

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

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

Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 112
<211> 127
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 112

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

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

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

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

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

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

Ala Val Val Gln Val Ile Asp Pro Ser Trp Ser Gly Val Asn Leu Asp
100 105 110

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

<210> 113
<211> 124
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 113

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

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

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

Ala Gly Ile Gln Trp Ser Gly Gly Asp Ala Phe Tyr Arg Asn Ser Val
50 55 60

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

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

Gln Lys Leu Ser Pro Tyr Tyr Asn Asp Phe Asp Ser Ser Asn Tyr Glu
100 105 110

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

<210> 114
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody

<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 Ala Thr Ile Ser Ser Ile Val
20 25 30

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

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

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

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

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

Val Ser Ser
        115
```

<210> 115
<211> 121
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 115

```
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 Gln Thr Ser Ser Ser Tyr
            20                  25                  30

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

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

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

Leu Gln Met Asp Arg Leu Lys Pro Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Arg Val Pro Arg Tyr Glu Asn Gln Trp Ser Ser Tyr Asp Tyr Trp Gly
            100                 105                 110

Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
```

<210> 116
<211> 127
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 116

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 Thr Phe Ser Thr Tyr
20 25 30

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

Ser Gly Ile Asp Ser Gly Gly Gly Ser Pro Met Tyr Val Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn Thr Leu 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 Lys Phe Ser Thr Gly Ala Asp Gly Gly Ser Trp Tyr Trp Ser Tyr
100 105 110

Gly Met Asp Ser Trp Gly Lys Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 117
<211> 121
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 117

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 Glu Ala Ser Glu Arg Ser Ser Asn Arg Tyr
20 25 30

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

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

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

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

```
Ala Ala Gly Gly Trp Gly Thr Thr Gln Tyr Asp Tyr Asp Tyr Trp Gly
            100                 105                 110

Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
```

<210> 118
<211> 117
<212> PRT
<213> Artificial

<220>
<223> nanobody

<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 Cys Val Ser Ser Gly Cys Thr Phe Ser
            20                  25                  30

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

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

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

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

Tyr Cys Gln Arg Arg Gly Tyr Ala Leu Asp Arg Gly Gln Gly Thr Gln
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 119
<211> 129
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 119

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

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

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

```
        35                  40                  45

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

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

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

Tyr Tyr Cys Ala Ala Asp Ser Ser His Tyr Ser Tyr Val Tyr Ser Lys
            100                 105                 110

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

Ser
```

<210> 120
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 120

```
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 Phe Ser Gly Phe Ala Phe Ser Ala Ser
            20                  25                  30

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

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

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

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

Gly Arg Arg Gly Tyr Gly Arg Asp Arg Ser Gln Gly Ile Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 121
<211> 127
<212> PRT
<213> Artificial

<220>
<223> nanobody

<220>
<221> MISC_FEATURE
<222> (119)..(119)
<223> Unknown amino acid residue

<400> 121

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

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

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

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

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

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

Ala Val Val Gln Pro Tyr Ser Gly Gly Asp Tyr Tyr Thr Gly Val Glu
100 105 110

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

<210> 122
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody

<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 Val Ser Gly Phe Thr Phe Ser Ala Thr
20 25 30

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

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

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

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

Gly Arg Arg Gly Tyr Gly Arg Asp Arg Ser Arg Gly Ile Gln Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 123
<211> 121
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 123

```
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 Gly Ala Phe Ser Asn Tyr
            20                  25                  30

Asp Val Gly Trp Phe Arg Gln Ala Pro Gly Glu Gly Arg Glu Ile Val
        35                  40                  45

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

Arg Ala Ala Arg Tyr Asn Gly Thr Trp Ser Ser Asn Asp Tyr Trp Gly
            100                 105                 110

Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
```

<210> 124
<211> 117
<212> PRT
<213> Artificial

<220>

<223> nanobody

<400> 124

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 Glu Cys Val Ser Ser Gly Cys Thr Phe Ser
20 25 30

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

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

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

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

Tyr Cys Gln Arg Arg Gly Tyr Ala Leu Asp Arg Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 125
<211> 121
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 125

Gln 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 Thr Ala Ser Gly Gln Thr Ser Ser Thr Ala
20 25 30

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

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

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

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

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

Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 126
<211> 115
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 126

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 Val Ser Gly Phe Thr Phe Ser Thr Thr
20 25 30

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

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

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

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

Gly Arg Arg Gly Tyr Gly Arg Asp Arg Ser Lys Gly Ile Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 127
<211> 118
<212> PRT
<213> Artificial

<220>
<223> nanobody

<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 Val Ala Ser Ala Ser Gly Val Lys Val Asn
20 25 30

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

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

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

Gln Val Thr Val Ser Ser
        115
```

<210> 128
<211> 121
<212> PRT
<213> Artificial

<220>
<223> nanobody

<400> 128

```
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 Ser Phe Gly Ser Val
            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 Gly Tyr Asp Gly Asn Ser Ile Arg Tyr Gly Asp Ser Val
    50                  55                  60

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

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

Ala Ala Glu Pro Leu Ala Arg Tyr Glu Gly Leu Trp Thr Tyr Trp Gly
            100                 105                 110

Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120
```

<210> 129
<211> 121
<212> PRT

<213> Artificial

<220>
<223> nanobody

<400> 129

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

Ser Leu Arg Leu Ser Cys Thr Thr Ser Thr Arg Thr Asn Asp Arg Phe
20 25 30

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

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

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

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

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

Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 130
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 130

Gln 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 Phe Thr Phe Ser
20 25 30

<210> 131
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 131

Gln Val Gln Leu Gln 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 Phe Asp Phe Gly
20 25 30

<210> 132
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<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 Thr Ser Gly Phe Asp Phe Ser
20 25 30

<210> 133
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 133

Gln 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
20 25 30

<210> 134
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 134

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

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

<210> 135
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 135

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

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

<210> 136
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 136

Ala Val Gln Leu Val Asp 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
20 25 30

<210> 137
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 137

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

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

<210> 138
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 138

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

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

<210> 139
<211> 30
<212> PRT
<213> Artificial

<220>

<223> FR1 element

<400> 139

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 Gln Ile Ile Phe Gly
20 25 30

<210> 140
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 140

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 Lys Asn Ala Gly Ser Thr Ser Asn
20 25 30

<210> 141
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 141

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 Val Ser Gly Gln Leu Phe Ser
20 25 30

<210> 142
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 142

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 Val Ser Gly Phe Thr Phe Ser
20 25 30

<210> 143
<211> 30
<212> PRT

<213> Artificial

<220>
<223> FR1 element

<400> 143

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

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

<210> 144
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<220>
<221> MISC_FEATURE
<222> (1)..(4)
<223> Unknown amino acid residues, probably EVQL, QVQL or a similar sequence

<400> 144

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Met Phe Ser
20 25 30

<210> 145
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 145

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 Gly
20 25 30

<210> 146
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 146

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

1 5 10 15

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

<210> 147
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 147

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

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

<210> 148
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<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 Ala Thr Ile Ser Ser
20 25 30

<210> 149
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 149

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 Gln Thr Ser Ser
20 25 30

<210> 150
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<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 Ser Thr Phe Ser
20 25 30

<210> 151
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 151

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 Glu Ala Ser Glu Arg Ser Ser Asn
20 25 30

<210> 152
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 152

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 Cys Val Ser Ser Gly Cys Thr
20 25 30

<210> 153
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 153

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

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

<210> 154
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<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 Val Phe Ser Gly Phe Ala Phe Ser
20 25 30

<210> 155
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 155

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
20 25 30

<210> 156
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<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 Val Val Ser Gly Phe Thr Phe Ser
20 25 30

<210> 157
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 157

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 Gly Ala Phe Ser
20 25 30

<210> 158
<211> 30

<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 158

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

Ser Leu Arg Leu Ser Cys Glu Cys Val Ser Ser Gly Cys Thr
20 25 30

<210> 159
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 159

Gln 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 Thr Ala Ser Gly Gln Thr Ser Ser
20 25 30

<210> 160
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 160

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 Val Ser Gly Phe Thr Phe Ser
20 25 30

<210> 161
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<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 Val Ala Ser Ala Ser Gly Val Lys
20 25 30

<210> 162
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 162

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 Ser Phe Gly
20 25 30

<210> 163
<211> 29
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 163

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

Ser Leu Arg Leu Ser Cys Thr Thr Ser Thr Arg Thr Asn
20 25

<210> 164
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 164

Asp Tyr Trp Met Tyr
1 5

<210> 165
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 165

Val Ser Trp Met Tyr
1 5

<210> 166
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 166

Val Ser Trp Met Tyr
1 5

<210> 167
<211> 10
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 167

Glu Pro Ser Gly Tyr Thr Tyr Thr Ile Gly
1 5 10

<210> 168
<211> 10
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 168

Asp Tyr Ser Gly Tyr Thr Tyr Thr Val Gly
1 5 10

<210> 169
<211> 10
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 169

Asp Tyr Ser Gly Tyr Thr Tyr Thr Val Gly
1 5 10

<210> 170
<211> 8
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 170

Ala His Ser Val Tyr Thr Met Gly
1 5

<210> 171
<211> 5
<212> PRT

<213> Artificial

<220>
<223> CDR1 element

<400> 171

Gly Tyr Tyr Met Gly
1 5

<210> 172
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 172

Asn Tyr Tyr Met Gly
1 5

<210> 173
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 173

Ser His Val Ala Ala
1 5

<210> 174
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 174

Ala Tyr Ala Thr Gly
1 5

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Glu Ile Asn Thr Asn Gly Leu Ile Thr Lys Tyr Pro Asp Ser Val Lys
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Gly

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

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

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

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

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

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Gly

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Gly

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

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

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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg
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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg
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Met Asp Ser Leu Ile Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg
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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
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Met Asn Asn Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
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Met Asn Asn Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
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Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn Thr Ile Tyr Leu Gln
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<400> 284

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Asn Ala
20 25 30

<210> 285
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<220>
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<400> 285

Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Met Val Tyr Leu Gln
1 5 10 15

Met Asp Arg Leu Lys Pro Asp Asp Thr Ala Val Tyr Tyr Cys Arg Val
20 25 30

<210> 286
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 286

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

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

<210> 287
<211> 32
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<220>
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<400> 287

Arg Phe Thr Val Ser Arg Ile Asn Gly Lys Asn Ala Met Tyr Leu Gln
1 5 10 15

Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala
20 25 30

<210> 288
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<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 288

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Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys Lys Thr Leu Tyr Leu Gln
1               5                   10                  15

Met Asn Ser Leu Gly Pro Glu Asp Thr Ala Met Tyr Tyr Cys Gln Arg
            20                  25                  30
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<210> 289
<211> 35
<212> PRT
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<220>
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<400> 289

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Arg Phe Thr Ile Ser Arg Gly Asn Ala Lys Asn Thr Glu Asn Thr Val
1               5                   10                  15

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

Cys Ala Ala
        35
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<220>
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<400> 290

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Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
1               5                   10                  15

Met Asn Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys Gly Arg
            20                  25                  30
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<210> 291
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 291

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Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys Asn Thr Val His Leu Gln
1               5                   10                  15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr His Cys Ala Val
            20                  25                  30
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<210> 292
<211> 32
<212> PRT

<213> Artificial

<220>
<223> FR3 element

<400> 292

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

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

<210> 293
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 293

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

Met Asn Ser Leu Lys Arg Glu Asp Thr Ala Val Tyr Tyr Cys Arg Ala
20 25 30

<210> 294
<211> 32
<212> PRT
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<220>
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<400> 294

Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys Lys Thr Leu Tyr Leu Gln
1 5 10 15

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

<210> 295
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 295

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

Met Asp Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Arg Ser
20 25 30

<210> 296
<211> 32
<212> PRT
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<220>
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<400> 296

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

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

<210> 297
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<220>
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<400> 297

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

Met Asn Ser Leu Leu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
20 25 30

<210> 298
<211> 32
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<220>
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<400> 298

Arg Phe Thr Ile Ser Arg Asp Asn Ile Lys Asn Thr Met Tyr Leu Glu
1 5 10 15

Met Glu Asn Leu Asn Ala Asp Asp Thr Ala Arg Tyr Leu Cys Ala Ala
20 25 30

<210> 299
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<212> PRT
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<220>
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<400> 299

Arg Phe Thr Val Ser Arg Asp Ser Ala Glu Asn Thr Val Val Leu Gln
1 5 10 15

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

20 25 30

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<220>
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<400> 300

Ser Pro Ser Gly Phe Asn
1 5

<210> 301
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<220>
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<400> 301

Ser Pro Ser Gly Ser Phe
1 5

<210> 302
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<220>
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<400> 302

Ser Pro Ser Gly Ser Phe
1 5

<210> 303
<211> 15
<212> PRT
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<220>
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<400> 303

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Gly Ser Tyr Asn Tyr
1 5 10 15

<210> 304
<211> 15
<212> PRT
<213> Artificial

<220>
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<400> 304

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Glu Ser Tyr Asn Tyr
1 5 10 15

<210> 305
<211> 15
<212> PRT
<213> Artificial

<220>
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<400> 305

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Glu Ser Tyr Asn Tyr
1 5 10 15

<210> 306
<211> 15
<212> PRT
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<220>
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<400> 306

Arg Asp Gly Ile Pro Thr Ser Arg Ser Val Glu Ala Tyr Asn Tyr
1 5 10 15

<210> 307
<211> 14
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 307

Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Asn
1 5 10

<210> 308
<211> 14
<212> PRT
<213> Artificial

<220>
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<400> 308

Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Tyr
1 5 10

<210> 309
<211> 17
<212> PRT
<213> Artificial

<220>
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<400> 309

Ala Pro Tyr Arg Gly Gly Arg Asp Tyr Arg Trp Glu Tyr Glu Tyr Glu
1 5 10 15

Tyr

<210> 310
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<212> PRT
<213> Artificial

<220>
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<400> 310

Lys Leu Ser Pro Tyr Tyr Asn Asp Phe Asp Ser Ser Asn Tyr Glu Tyr
1 5 10 15

<210> 311
<211> 13
<212> PRT
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<400> 311

Asn Arg Leu Arg Ser Thr Trp Gly Ile Arg Tyr Asp Val
1 5 10

<210> 312
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<400> 312

Arg Gly Tyr Gly Arg Asp
1 5

<210> 313
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<220>
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<400> 313

Glu Pro Ile Gly Ala Tyr Glu Gly Leu Trp Thr Tyr
1 5 10

<210> 314
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<212> PRT
<213> Artificial

<220>
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<400> 314

Ser Tyr Ser Asn Gly Asn Pro His Arg Phe Ser Gln Tyr Gln Tyr
1 5 10 15

<210> 315
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<212> PRT
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<220>
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<400> 315

Ala Asn Asn Ile Ala Thr Leu Arg Gln Gly Ser
1 5 10

<210> 316
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<212> PRT
<213> Artificial

<220>
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<400> 316

Val Gln Val Ile Asp Pro Ser Trp Ser Gly Val Asn Leu Asp Asp Tyr
1 5 10 15

Asp Tyr

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<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 317

Lys Leu Ser Pro Tyr Tyr Asn Asp Phe Asp Ser Ser Asn Tyr Glu Tyr
1 5 10 15

<210> 318
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<212> PRT
<213> Artificial

<220>
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<400> 318

Val Pro Pro Arg Asp Asp Tyr
1 5

<210> 319
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<220>
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<400> 319

Pro Arg Tyr Glu Asn Gln Trp Ser Ser Tyr Asp Tyr
1 5 10

<210> 320
<211> 18
<212> PRT
<213> Artificial

<220>
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<400> 320

Phe Ser Thr Gly Ala Asp Gly Gly Ser Trp Tyr Trp Ser Tyr Gly Met
1 5 10 15

Asp Ser

<210> 321
<211> 12
<212> PRT
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<220>
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<400> 321

Gly Gly Trp Gly Thr Thr Gln Tyr Asp Tyr Asp Tyr
1 5 10

<210> 322
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<212> PRT
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<220>
<223> CDR3 element

<400> 322

Arg Gly Tyr Ala Leu Asp
1 5

<210> 323
<211> 17
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 323

Asp Ser Ser His Tyr Ser Tyr Val Tyr Ser Lys Ala Tyr Glu Tyr Asp
1 5 10 15

Tyr

<210> 324
<211> 6
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 324

Arg Gly Tyr Gly Arg Asp
1 5

<210> 325
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<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 325

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

Asp Tyr

<210> 326
<211> 6
<212> PRT
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<220>
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<400> 326

Arg Gly Tyr Gly Arg Asp
1 5

<210> 327
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<212> PRT
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<400> 327

Ala Arg Tyr Asn Gly Thr Trp Ser Ser Asn Asp Tyr
1 5 10

<210> 328
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Arg Gly Tyr Ala Leu Asp
1 5

<210> 329
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<400> 329

Pro Arg Tyr Ala Asp Gln Trp Ser Ala Tyr Asp Tyr
1 5 10

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<220>
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<400> 330

Arg Gly Tyr Gly Arg Asp
1 5

<210> 331
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<212> PRT
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<400> 331

Arg Thr Tyr Trp Ala His Leu Pro Thr Tyr
1 5 10

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<220>
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<400> 332

Glu Pro Leu Ala Arg Tyr Glu Gly Leu Trp Thr Tyr
1 5 10

<210> 333
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<213> Artificial

<220>
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<400> 333

Gly Gly Trp Gly Ile Ser Gln Ser Asp Tyr Asp Leu
1 5 10

<210> 334
<211> 11
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<220>
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<400> 334

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 335
<211> 11
<212> PRT
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<220>
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<400> 335

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 336
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<220>
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<400> 336

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 337
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<220>
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<400> 337

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

1 5 10

<210> 338
<211> 11
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<213> Artificial

<220>
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<400> 338

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 339
<211> 11
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<220>
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<400> 339

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 340
<211> 11
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<400> 340

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

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<400> 341

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 342
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<400> 342

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 343
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<400> 343

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 344
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<400> 344

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 345
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<400> 345

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 346
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<220>
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<400> 346

Arg Ser Lys Gly Ile Gln Val Thr Val Ala Ser
1 5 10

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<400> 347

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

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<211> 11
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<220>
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<400> 348

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 349
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<400> 349

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 350
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<213> Artificial

<220>
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<400> 350

Leu Gly Ser Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 351
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<212> PRT
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<220>
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<400> 351

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 352
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<220>
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<400> 352

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 353
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<220>
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<400> 353

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 354
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<220>
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<400> 354

Trp Gly Lys Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 355
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 355

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 356
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 356

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 357
<211> 11
<212> PRT
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<220>
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<400> 357

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 358
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 358

Arg Ser Gln Gly Ile Gln Val Thr Val Ser Ser
1 5 10

<210> 359
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<220>
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<400> 359

Trp Gly Xaa Gly Thr Gln Val Thr Val Ser Ser
1 5 10

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<220>
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<400> 360

Arg Ser Arg Gly Ile Gln Val Thr Val Ser Ser
1 5 10

<210> 361
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<400> 361

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 362
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Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

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<400> 363

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 364
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<220>
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<400> 364

Arg Ser Lys Gly Ile Gln Val Thr Val Ser Ser
1 5 10

<210> 365
<211> 11
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<220>
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<400> 365

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 366
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<400> 366

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 367
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<212> PRT
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<220>
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<400> 367

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 368
<211> 30
<212> PRT
<213> Artificial

<220>
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<400> 368

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

Ser Leu Arg Leu Ala Cys Ala Ala Ser Glu Arg Ile Phe Asp
20 25 30

<210> 369
<211> 30
<212> PRT
<213> Artificial

<220>
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<400> 369

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

Ser Leu Arg Leu Ala Cys Ala Ala Ser Glu Arg Ile Trp Asp
20 25 30

<210> 370
<211> 30
<212> PRT
<213> Artificial

<220>
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<400> 370

Ala 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 Arg
20 25 30

<210> 371
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 371

Ala Val Gln Leu Val Asp 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 Ser Phe Gly
20 25 30

<210> 372
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 element

<400> 372

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

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

<210> 373
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<212> PRT
<213> Artificial

<220>
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<400> 373

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

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

<210> 374
<211> 30
<212> PRT
<213> Artificial

<220>
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<400> 374

Gln 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 Phe Thr Phe Ser

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<212> PRT
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<220>
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<400> 375

Leu Asn Leu Met Gly
1 5

<210> 376
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<220>
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<400> 376

Ile Asn Leu Leu Gly
1 5

<210> 377
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<213> Artificial

<220>
<223> CDR1 element

<400> 377

Ser Phe Gly Met Ser
1 5

<210> 378
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR1 element

<400> 378

Ser Phe Gly Met Ser
1 5

<210> 379
<211> 5
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<213> Artificial

<220>
<223> CDR1 element

<400> 379

Ser Phe Gly Met Ser
1 5

<210> 380
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<220>
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<400> 380

Ser Phe Gly Met Ser
1 5

<210> 381
<211> 5
<212> PRT
<213> Artificial

<220>
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<400> 381

Asn Tyr Trp Met Tyr
1 5

<210> 382
<211> 14
<212> PRT
<213> Artificial

<220>
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<400> 382

Trp Tyr Arg Gln Gly Pro Gly Asn Glu Arg Glu Leu Val Ala
1 5 10

<210> 383
<211> 14
<212> PRT
<213> Artificial

<220>
<223> FR2 element

<400> 383

Trp Tyr Arg Gln Gly Pro Gly Asn Glu Arg Glu Leu Val Ala
1 5 10

<210> 384
<211> 14
<212> PRT
<213> Artificial

<220>
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<400> 384

Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val Ser
1 5 10

<210> 385
<211> 14
<212> PRT
<213> Artificial

<220>
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<400> 385

Trp Val Arg Gln Tyr Pro Gly Lys Glu Pro Glu Trp Val Ser
1 5 10

<210> 386
<211> 14
<212> PRT
<213> Artificial

<220>
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<400> 386

Trp Val Arg Gln Ala Pro Gly Lys Asp Gln Glu Trp Val Ser
1 5 10

<210> 387
<211> 14
<212> PRT
<213> Artificial

<220>
<223> FR2 element

<400> 387

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

<210> 388
<211> 14
<212> PRT
<213> Artificial

<220>
<223> FR2 element

<400> 388

Trp Val Arg Val Ala Pro Gly Lys Gly Leu Glu Arg Ile Ser
1 5 10

<210> 389
<211> 17
<212> PRT
<213> Artificial

<220>
<223> CDR2 element

<400> 389

Thr Cys Ile Thr Val Gly Asp Ser Thr Asn Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 390
<211> 16
<212> PRT
<213> Artificial

<220>
<223> CDR2 element

<400> 390

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

<210> 391
<211> 17
<212> PRT
<213> Artificial

<220>
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<400> 391

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

Gly

<210> 392
<211> 17
<212> PRT
<213> Artificial

<220>
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<400> 392

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

Gly

<210> 393
<211> 17
<212> PRT
<213> Artificial

<220>
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<400> 393

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

Gly

<210> 394
<211> 17
<212> PRT
<213> Artificial

<220>
<223> CDR2 element

<400> 394

Ala Ile Ser Ala Asp Ser Ser Asp Lys Arg Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 395
<211> 18
<212> PRT
<213> Artificial

<220>
<223> CDR2 element

<400> 395

Arg Asp Ile Ser Thr Gly Gly Gly Tyr Ser Tyr Tyr Ala Asp Ser Val
1 5 10 15

Lys Gly

<210> 396
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 396

Arg Phe Thr Ile Ser Met Asp Tyr Thr Lys Gln Thr Val Tyr Leu His
1 5 10 15

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

<210> 397
<211> 32
<212> PRT
<213> Artificial

<220>

<223> FR3 element

<400> 397

Arg Phe Thr Ile Ser Arg Asp Tyr Asp Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

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

<210> 398
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 398

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
1 5 10 15

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

<210> 399
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 399

Arg Phe Ser Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Glu Tyr Tyr Cys Thr Ile
20 25 30

<210> 400
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 400

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Met Leu Tyr Leu Glu
1 5 10 15

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

<210> 401
<211> 32
<212> PRT

<213> Artificial

<220>
<223> FR3 element

<400> 401

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Met Leu Tyr Leu Glu
1 5 10 15

Met Asn Ser Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys Val Ile
20 25 30

<210> 402
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 element

<400> 402

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Lys
20 25 30

<210> 403
<211> 8
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 403

Arg Arg Thr Trp His Ser Glu Leu
1 5

<210> 404
<211> 8
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 404

Arg Arg Thr Trp His Ser Glu Leu
1 5

<210> 405
<211> 6
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 405

Gly Gly Ser Leu Ser Arg
1 5

<210> 406
<211> 7
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 406

Gly Arg Ser Val Ser Arg Ser
1 5

<210> 407
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 407

Gly Arg Gly Ser Pro
1 5

<210> 408
<211> 5
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 408

Gly Arg Gly Ser Pro
1 5

<210> 409
<211> 13
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 409

Asp Arg Glu Ala Gln Val Asp Thr Leu Asp Phe Asp Tyr
1 5 10

<210> 410
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 element

<400> 410

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 411
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 element

<400> 411

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 412
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 element

<400> 412

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 413
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 element

<400> 413

Arg Thr Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 414
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 element

<400> 414

Ser Ser Pro Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 415
<211> 11
<212> PRT
<213> Artificial

<220>

<223> FR4 element

<400> 415

Ala Ser Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 416
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 element

<400> 416

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 417
<211> 363
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 417

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 Phe Thr Phe Ser Asp Tyr
20 25 30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala 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

Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
115 120 125

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu
130 135 140

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp

145 150 155 160

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser
165 170 175

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

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

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

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

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
245 250 255

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
260 265 270

Ser Gly Phe Thr Phe Ser Asp Tyr Trp Met Tyr Trp Val Arg Gln Ala
275 280 285

Pro Gly Lys Gly Leu Glu Trp Val Ser Glu Ile Asn Thr Asn Gly Leu
290 295 300

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

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

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Ser Pro Ser Gly Phe Asn
340 345 350

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

<210> 418
<211> 379
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 418

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 Arg Ser Leu Ser Asn Tyr
            20                  25                  30

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

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

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

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

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

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

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

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

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

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

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

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

Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly
225                 230                 235                 240

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

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ser Leu Ser Asn Tyr
        275                 280                 285

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

290 295 300

Gly Asn Ile Ser Trp Arg Gly Tyr Asn Ile Tyr Tyr Lys Asp Ser Val
305 310 315 320

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

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
340 345 350

Ala Ala Ser Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Tyr
355 360 365

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

<210> 419
<211> 260
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 419

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 Phe Thr Phe Ser Asp Tyr
20 25 30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala 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

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

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

Tyr Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
            180                 185                 190

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

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

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

Cys Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Leu Val
                245                 250                 255

Thr Val Ser Cys
            260
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<210> 420
<211> 264
<212> PRT
<213> Artificial

<220>
<223> nanobody construct

<400> 420

```
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 Phe Thr Phe Ser Asp Tyr
            20                  25                  30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala 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

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

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

Tyr Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
180 185 190

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

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

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

Cys Ala Arg Ser Pro Ser Gly Phe Asn Arg Gly Gln Gly Thr Leu Val
245 250 255

Thr Val Ser Ser Gly Gly Gly Cys
260

<210> 421
<211> 20
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 421
ggataacaat ttcacacagg 20

<210> 422
<211> 55
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 422
tcagtaacct ggatccgcca ccgctgcctc caccgcctga ggagacggtg accag 55

<210> 423
<211> 39
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 423
aggttactga ggatccgagg tgcagctggt ggagtctgg 39

<210> 424
<211> 46
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 424
tcagtaacct tccggaaccg ccaccgcctg aggagacggt gacaag 46

<210> 425
<211> 48
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 425
aggttactga tccggaggcg gtagcgaggt gcagctggtg gagtctgg 48

<210> 426
<211> 19
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 426
cacgacgttg taaaacgac 19

<210> 427
<211> 43
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 427
atggtggtgt gcggccgcct attatgagga gacggtgacc agg 43

<210> 428
<211> 45
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 428
aggggtatct ctcgagaaaa gagaggtgca gctggtggag tctgg 45

<210> 429

<211> 56
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 429
gctaaagaag aaggggtatc tctcgagaaa agagaggtgc agctggtgga gtctgg 56

<210> 430
<211> 88
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 430
tcagtaacct ggatcccccg ccaccgctgc ctccaccgcc gctacccccg ccaccgctgc 60

ctccaccgcc tgaggagacg gtgacaag 88

<210> 431
<211> 69
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 431
aggttactga ggatccggcg gtggaggcag cggtggcggg ggtagcgagg tgcagctggt 60

ggagtctgg 69

<210> 432
<211> 41
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 432
atggtggtgt gaattcttat tagcaggaga cggtgacaag g 41

<210> 433
<211> 53
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 433
atggtggtgt gaattcttat tagcaacctc cacctgagga gacggtgaca agg 53

<210> 434
<211> 21
<212> DNA
<213> Artificial

<220>

<223> oligonucleotide primer

<400> 434
gactggttcc aattgacaag c 21

<210> 435
<211> 21
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer

<400> 435
gcaaatggca ttctgacatc c 21

<210> 436
<211> 13
<212> PRT
<213> Artificial

<220>
<223> CDR3 element

<400> 436

Ile Leu Pro Leu Ser Asp Asp Pro Gly Trp Asn Thr Tyr
1 5 10

<210> 437
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 437

Lys Glu Arg Glu
1

<210> 438
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 438

Lys Gln Arg Glu
1

<210> 439
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 439

Gly Leu Glu Trp
1

<210> 440
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 440

Lys Glu Arg Glu Leu
1 5

<210> 441
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 441

Lys Glu Arg Glu Phe
1 5

<210> 442
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 442

Lys Gln Arg Glu Leu
1 5

<210> 443
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 443

Lys Gln Arg Glu Phe
1 5

<210> 444
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 444

Lys Glu Arg Glu Gly
1 5

<210> 445
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 445

Thr Glu Arg Glu
1

<210> 446
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 446

Thr Glu Arg Glu Leu
1 5

<210> 447
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 447

Lys Glu Cys Glu
1

<210> 448
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 448

Lys Glu Cys Glu Leu
1 5

<210> 449
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 449

Lys Glu Cys Glu Arg
1 5

<210> 450
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 450

Arg Glu Arg Glu
1

<210> 451
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 451

Arg Glu Arg Glu Gly
1 5

<210> 452
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 452

Gln Glu Arg Glu
1

<210> 453
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 453

Gln Glu Arg Glu Gly
1 5

<210> 454
<211> 4
<212> PRT
<213> Artificial

<220>

<223> nanobody element

<400> 454

Lys Gly Arg Glu
1

<210> 455
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 455

Lys Gly Arg Glu Gly
1 5

<210> 456
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 456

Lys Asp Arg Glu
1

<210> 457
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 457

Lys Asp Arg Glu Val
1 5

<210> 458
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 458

Asp Glu Cys Lys Leu
1 5

<210> 459
<211> 5
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 459

Asn Val Cys Glu Leu
1 5

<210> 460
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 460

Gly Val Glu Trp
1

<210> 461
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 461

Glu Pro Glu Trp
1

<210> 462
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 462

Gly Leu Glu Arg
1

<210> 463
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 463

Asp Gln Glu Trp
1

<210> 464
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 464

Asp Leu Glu Trp
1

<210> 465
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 465

Gly Ile Glu Trp
1

<210> 466
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 466

Glu Leu Glu Trp
1

<210> 467
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 467

Gly Pro Glu Trp
1

<210> 468
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 468

Glu Trp Leu Pro
1

<210> 469
<211> 4
<212> PRT

<213> Artificial

<220>
<223> nanobody element

<400> 469

Gly Pro Glu Arg
1

<210> 470
<211> 4
<212> PRT
<213> Artificial

<220>
<223> nanobody element

<400> 470

Gly Leu Glu Arg
1

<210> 471
<211> 4
<212> PRT
<213> Artificial

<220>
<223> spacer

<400> 471

Gly Gly Gly Cys
1

<210> 472
<211> 109
<212> PRT
<213> Artificial

<220>
<223> immunoglobulin construct

<400> 472

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 Phe Thr Phe Ser Ser Tyr
20 25 30

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

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

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

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

Ala Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105
```

<210> 473
<211> 109
<212> PRT
<213> Artificial

<220>
<223> immunoglobulin construct

<400> 473

```
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 Phe Thr Phe Ser Ser Tyr
            20                  25                  30

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

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

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

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

Ala Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105
```

<210> 474
<211> 109
<212> PRT
<213> Artificial

<220>
<223> immunoglobulin construct

<400> 474

```
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 Phe Thr Phe Ser Ser Tyr
            20                  25                  30

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

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

50 55 60

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

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

Ala Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105

<210> 475
<211> 111
<212> PRT
<213> Artificial

<220>
<223> immunoglobulin construct

<400> 475

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 Phe Thr Phe Ser Asp His
20 25 30

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

Gly Arg Thr Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
50 55 60

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

Ala