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<120> Amino acid sequences directed against RANK-L and polypeptides comprising the same for the treatment of bone diseases and disorders

<130> P07-009-PCT-1

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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
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Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Thr Ala Ser
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Asn Arg Gly Tyr Leu His Met Asn Asn Leu Thr Pro Glu Asp Thr Ala
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Met Asp Tyr Thr Lys
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35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Ser Glu Lys Asp Lys
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Asn Ser Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
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35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ala Arg Asp Ser Thr Lys
50 55 60

Asp Thr Phe Cys Leu Gln Met Asn Asn Leu Lys Pro Glu Asp Thr Ala
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Ser Asp Xaa Xaa
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Xaa Xaa Xaa Trp Phe Arg Gln Ala Pro Gly Lys Pro Arg Glu Gly Val

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        35                  40                  45

Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Thr Asp Asn Ala Lys
    50                  55                  60

Asn Thr Val His Leu Leu Met Asn Arg Val Asn Ala Glu Asp Thr Ala
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Leu Tyr Tyr Cys Ala Val Xaa Xaa Xaa Xaa Xaa Trp Gly Arg Gly Thr
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            20                  25                  30

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

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys
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Arg Ala Ile Tyr Leu Gln Met Asn Asn Leu Lys Pro Asp Asp Thr Ala
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Ser Leu Arg Leu Phe Cys Ala Val Pro Ser Phe Thr Ser Thr Xaa Xaa
            20                  25                  30

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

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asn Ala Thr Lys
    50                  55                  60

Asn Thr Leu Thr Leu Arg Met Asp Ser Leu Lys Pro Glu Asp Thr Ala
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Val Tyr Tyr Cys Ala Ala Xaa Xaa Xaa Xaa Xaa Trp Gly Gln Gly Thr
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35 40 45

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

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Ser Ala Lys
50 55 60

Asn Met Met Tyr Leu Gln Met Asn Asn Leu Lys Pro Gln Asp Thr Ala
65 70 75 80

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Gln Val Thr Val Ser Ser
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Ser Leu Arg Leu Ser Cys Val Val Ser Gly Leu Thr Ser Ser Xaa Xaa
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Xaa Xaa Xaa Trp Phe Arg Gln Thr Pro Trp Gln Glu Arg Asp Phe Val
35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Tyr Lys
50 55 60

Asp Thr Val Leu Leu Glu Met Asn Phe Leu Lys Pro Glu Asp Thr Ala
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Ser Leu Arg Leu Ser Cys Ala Thr Ser Thr Arg Thr Leu Asp Xaa Xaa
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Xaa Xaa Xaa Trp Phe Arg Gln Ala Pro Gly Arg Asp Arg Glu Phe Val
35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Val Ser Arg Asp Ser Ala Glu
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Asn Thr Val Ala Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
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Arg Val Thr Val Ser Ser
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Ser Leu Arg Leu Ser Cys Thr Val Ser Arg Leu Thr Ala His Xaa Xaa
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Xaa Xaa Xaa Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Ala Val
35 40 45

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

Asn Thr Ala Phe Leu Gln Met Asp Ser Leu Lys Pro Glu Asp Thr Gly
65 70 75 80

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Ser Leu Lys Leu Ser Cys Thr Ala Ser Gly Arg Asn Phe Val Xaa Xaa
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Xaa Xaa Xaa Trp Phe Arg Arg Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Val Ser Arg Asp Asn Gly Lys
    50                  55                  60

Asn Thr Ala Tyr Leu Arg Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
65                  70                  75                  80

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Gln Val Thr Val Ser Ser
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Xaa Xaa
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Xaa Xaa Xaa Trp Val Arg Gln Ala Pro Gly Lys Val Leu Glu Trp Val
        35                  40                  45
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Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
50 55 60

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
65 70 75 80

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

Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys
50 55 60

Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Gly Pro Glu Asp Thr Ala
65 70 75 80

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

Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
50 55 60

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

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20 25 30

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

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
50 55 60

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
65 70 75 80

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

Xaa Xaa Xaa Trp Leu Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Gly Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
50 55 60

Asn Met Leu Tyr Leu His Leu Asn Asn Leu Lys Ser Glu Asp Thr Ala
65 70 75 80

Val Tyr Tyr Cys Arg Arg Xaa Xaa Xaa Xaa Xaa Leu Gly Gln Gly Thr
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Ser Leu Arg Leu Ser Cys Val Cys Val Ser Ser Gly Cys Thr Xaa Xaa
20 25 30

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

Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys
50 55 60

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

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

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

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 30

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

Ser Leu Gln Leu Ser Cys Ser Ala Pro Gly Phe Thr Leu Asp
20 25 30

<210> 31
<211> 30
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 31

Ala Gln Glu Leu Glu 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 Asn
20 25 30

<210> 32
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 32

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

Ser Cys Ala Ala Ser Gly
20

<210> 33
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 33

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

Ser Cys Ala Leu Thr Gly
20

<210> 34
<211> 22
<212> PRT

<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 34

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

Ser Cys Ala Ala Ser Gly
20

<210> 35
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 35

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

Ser Cys Gln Val Ser Glu
20

<210> 36
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 36

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

Ser Cys Ala Ala Ser Gly
20

<210> 37
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 37

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

Ser Cys Ala Ala Ser Glu
20

<210> 38
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 38

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

Ser Cys Ala Ser Ser Thr
20

<210> 39
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 39

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

Ser Cys Val Ala Ser Gly
20

<210> 40
<211> 22
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW1 sequence

<400> 40

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

Ser Cys Ser Ala Ser Val
20

<210> 41
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 41

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

<210> 42
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 42

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

<210> 43
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 43

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

<210> 44
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 44

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

<210> 45
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 45

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

<210> 46
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 46

Trp Phe Arg Glu Ala Pro Gly Lys Glu Arg Glu Gly Ile Ser
1 5 10

<210> 47
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 47

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

<210> 48
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 48

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

<210> 49
<211> 14
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW2 sequence

<400> 49

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

<210> 50
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 50

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 Arg Cys Tyr Phe
20 25 30

<210> 51
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 51

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

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

<210> 52
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 52

Arg Phe Thr Val Ala Arg Asn Asn Ala Lys Asn Thr Val Asn Leu Glu
1 5 10 15

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

<210> 53
<211> 32

<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 53

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

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

<210> 54
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 54

Arg Leu Thr Ile Ser Arg Asp Asn Ala Val Asp Thr Met 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

<210> 55
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 55

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

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

<210> 56
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 56

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

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

<210> 57
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 57

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

Met Asn Asn Leu Lys Pro Gln Asp Thr Ala Val Tyr Tyr Cys Ala Ala
            20                  25                  30
```

<210> 58
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 58

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

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

<210> 59
<211> 32
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW3 sequence

<400> 59

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys Ala Thr
            20                  25                  30
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<210> 60
<211> 11
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW4 sequence

<400> 60

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

<210> 61
<211> 11
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW4 sequence

<400> 61

Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 62
<211> 11
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW4 sequence

<400> 62

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

<210> 63
<211> 11
<212> PRT
<213> Artificial

<220>
<223> KERE-class Nanobody FW4 sequence

<400> 63

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

<210> 64
<211> 30
<212> PRT

<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 64

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> 65
<211> 30
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 65

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

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

<210> 66
<211> 30
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 66

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

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

<210> 67
<211> 30
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 67

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> 68
<211> 30
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 68

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

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

<210> 69
<211> 22
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 69

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

Ser Cys Ala Ala Ser Gly
20

<210> 70
<211> 22
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 70

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

Ser Cys Val Ala Ser Gly
20

<210> 71
<211> 22
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW1 sequence

<400> 71

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

Ser Cys Val Phe Ser Gly
20

<210> 72
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 72

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

<210> 73
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 73

Trp Val Arg Arg Pro Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 74
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 74

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

<210> 75
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 75

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

<210> 76
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 76

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

<210> 77
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 77

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

<210> 78
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 78

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

<210> 79
<211> 14
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW2 sequence

<400> 79

Trp Val Arg Gln Ala Pro Gly Arg Ala Thr Glu Trp Val Ser
1 5 10

<210> 80
<211> 32
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW3 sequence

<400> 80

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 Val Tyr Tyr Cys Val Lys
20 25 30

<210> 81
<211> 32
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW3 sequence

<400> 81

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

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

<210> 82
<211> 32
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW3 sequence

<400> 82

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

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

<210> 83
<211> 32
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW3 sequence

<400> 83

Arg Phe Ile Ile Ser Arg Asp Asn Ala Lys Asn 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> 84
<211> 32
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW3 sequence

<400> 84

Arg Phe Thr Ala 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 Arg Tyr Tyr Cys Ala Arg
20 25 30

<210> 85
<211> 32
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW3 sequence

<400> 85

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> 86
<211> 11
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW4 sequence

<400> 86

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

<210> 87
<211> 11
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW4 sequence

<400> 87

Leu Arg Gly Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 88
<211> 11
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW4 sequence

<400> 88

Arg Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 89
<211> 11
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW4 sequence

<400> 89

Arg Ser Arg Gly Ile Gln Val Thr Val Ser Ser
1 5 10

<210> 90
<211> 11
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW4 sequence

<400> 90

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

<210> 91
<211> 11
<212> PRT
<213> Artificial

<220>
<223> GLEW-class Nanobody FW4 sequence

<400> 91

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

<210> 92
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 92

Ala 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> 93
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 93

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> 94
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 94

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

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

<210> 95
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 95

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Arg Thr Ile Val Ser
20 25 30

<210> 96
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 96

Gln Glu His Leu Val Glu Ser Gly Gly Gly Leu Val Asp Ile Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Glu Arg Ile Phe Ser
20 25 30

<210> 97
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 97

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

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

<210> 98
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 98

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

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

<210> 99
<211> 30
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 99

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

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

<210> 100
<211> 22
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 100

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

Ser Cys Ala Ala Ser Gly
20

<210> 101
<211> 22
<212> PRT

<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 101

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

Ser Cys Ala Ala Ser Arg
20

<210> 102
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 102

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

<210> 103
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 103

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

<210> 104
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 104

Trp Val Arg Arg Pro Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 105
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 105

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

<210> 106
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 106

Trp Val Arg Gln Tyr Pro Gly Lys Glu Pro Glu Trp Val Ser
1 5 10

<210> 107
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 107

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

<210> 108
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 108

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

<210> 109
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 109

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

<210> 110
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 110

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

<210> 111
<211> 14
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW2 sequence

<400> 111

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

<210> 112
<211> 32
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW3 sequence

<400> 112

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

<210> 113
<211> 32
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW3 sequence

<400> 113

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

Met Asp Ser Leu Ile Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg
            20                  25                  30
```

<210> 114
<211> 32
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW3 sequence

<400> 114

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

Met Asn Asn Leu Lys Thr Glu Asp Thr Gly Val Tyr Trp Cys Gly Ala
            20                  25                  30
```

<210> 115
<211> 32
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW3 sequence

<400> 115

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

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

<210> 116
<211> 32
<212> PRT
<213> Artificial

<220>
<223> P,R,S 103-class Nanobody FW3 sequence

<400> 116

```
Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Met Leu Tyr Leu His
1               5                   10                  15

Leu Asn Asn Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys Arg Arg
            20                  25                  30
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<210> 117
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<400> 117

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

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

<210> 118
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<223> P,R,S 103-class Nanobody FW3 sequence

<400> 118

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> 119
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<223> P,R,S 103-class Nanobody FW3 sequence

<400> 119

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

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

<210> 120
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<223> P,R,S 103-class Nanobody FW4 sequence

<400> 120

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

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<223> P,R,S 103-class Nanobody FW4 sequence

<400> 121

Leu Arg Gly Gly Thr Gln Val Thr Val Ser Ser
1 5 10

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<223> P,R,S 103-class Nanobody FW4 sequence

<400> 122

Gly Asn Lys Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 123
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<223> P,R,S 103-class Nanobody FW4 sequence

<400> 123

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

<210> 124
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<223> P,R,S 103-class Nanobody FW4 sequence

<400> 124

Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser

1 5 10

<210> 125
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<220>
<223> P,R,S 103-class Nanobody FW4 sequence

<400> 125

Arg Ser Arg Gly Ile Gln Val Thr Val Ser Ser
1 5 10

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<220>
<223> FR1 sequences

<400> 126

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 Val Ser Gly Arg Thr Phe Ser
20 25 30

<210> 127
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<220>
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<400> 127

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

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

<210> 128
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<220>
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<400> 128

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

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

<210> 129
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<220>
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<400> 129

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

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

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<400> 130

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 Ile Gly
20 25 30

<210> 131
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<220>
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<400> 131

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

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

20 25 30

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<400> 132

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

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

<210> 133
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<220>
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<400> 133

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

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

<210> 134
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<400> 134

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

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

<210> 135
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<400> 135

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

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

<210> 136
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<400> 136

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> 137
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<220>
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<400> 137

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

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

<210> 138
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<220>
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<400> 138

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 Arg
20 25 30

<210> 139
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<220>
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<400> 139

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

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

<210> 140
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<220>
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<400> 140

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 Ala Gly Gly Thr Phe Arg
20 25 30

<210> 141
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<220>
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<400> 141

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

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

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

<220>
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<400> 142

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

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

<210> 143
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<220>
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<400> 143

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> 144
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<220>
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<400> 144

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

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

<210> 145
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<400> 145

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

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

<210> 146
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<220>
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<400> 146

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 Val Ala Ser Arg Arg Thr Phe Asn
20 25 30

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<400> 147

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Glu Arg Thr Ser Arg
20 25 30

<210> 148
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<400> 148

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 Leu Thr Thr
20 25

<210> 149
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<400> 149

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

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

<210> 150
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<400> 150

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

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

<210> 151
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<400> 151

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 Arg
20 25 30

<210> 152
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<213> Artificial

<220>
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<400> 152

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 Leu Thr Ser Ser
20 25 30

<210> 153
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<400> 153

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

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

<210> 154
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<400> 154

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

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

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<220>
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<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 Ala Gly Gly Thr Phe Arg
20 25 30

<210> 156
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<220>
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<400> 156

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

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

<210> 157
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<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 Ala Gly Cys Thr Phe Arg
20 25 30

<210> 158
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<400> 158

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

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

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<400> 159

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 Ala Gly Gly Thr Phe Arg
20 25 30

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<400> 160

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 Ala Gly Tyr Thr Phe Arg
20 25 30

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<400> 161

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

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

<210> 162
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<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 Val Ala Ser Arg Arg Thr Phe Ser
20 25 30

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

<220>
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<400> 163

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 Val Ala Ser Lys Arg Thr Phe Ala
20 25 30

<210> 164
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<220>
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<400> 164

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

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

<210> 165
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<220>
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<400> 165

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

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

<210> 166
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<400> 166

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

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

<210> 167
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<400> 167

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> 168
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<400> 168

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

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

<210> 169
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<400> 169

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

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<400> 170

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

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<400> 171

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> 172
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<400> 172

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> 173
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<400> 173

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

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<400> 174

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> 175
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<400> 175

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

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

<210> 176
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<400> 176

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

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

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<400> 177

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

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

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<400> 178

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

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

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<400> 179

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

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

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<400> 180

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

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

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<400> 181

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

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

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<400> 182

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

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

<210> 183
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<400> 183

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

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

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<400> 184

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

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

<210> 185
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<220>
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<400> 185

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

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

<210> 186

<211> 30
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<220>
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<400> 186

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 Ala Gly Gly Thr Phe Arg
20 25 30

<210> 187
<211> 30
<212> PRT
<213> Artificial

<220>
<223> FR1 sequences

<400> 187

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 Ala Gly Phe Thr Phe Arg
20 25 30

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<400> 188

Ser Ser Thr Met Ala
1 5

<210> 189
<211> 5
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<213> Artificial

<220>
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<400> 189

Ser Tyr Tyr Met Ser
1 5

<210> 190
<211> 5
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<220>
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<400> 190

Ile Tyr Asn Met Ala
1 5

<210> 191
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<400> 191

Ser Tyr Ala Met Gly
1 5

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Gly His Thr Met Ala
1 5

<210> 193
<211> 5
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<400> 193

Tyr Tyr Thr Ala Ser
1 5

<210> 194
<211> 5
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<400> 194

Val Ser Thr Ile Ala
1 5

<210> 195
<211> 5
<212> PRT
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<400> 195

Arg Tyr Ala Met Gly
1 5

<210> 196
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<400> 196

Ser Tyr Ala Met Gly
1 5

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<223> CDR sequence

<400> 197

Ser Arg Thr Met Gly
1 5

<210> 198
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<400> 198

Ser Lys Thr Met Gly
1 5

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<400> 199

Met Ala
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<400> 200

Ser Tyr Pro Met Gly
1 5

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<400> 201

Tyr Tyr Thr Met Ser
1 5

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<400> 202

Asn Tyr Val Met Gly
1 5

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<400> 203

Ser Tyr Ala Met Gly
1 5

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<400> 204

Ser Thr Tyr Val Met Gly
1 5

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<400> 205

Arg Ser Ala Met Gly
1 5

<210> 206
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Met Gly
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Met Gly
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Ser Tyr Ala Val Gly
1 5

<210> 209
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<400> 209

Asn Tyr Gly Met Gly
1 5

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<400> 210

Val Tyr Thr Met Ala
1 5

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<400> 211

Gly Thr Met Ala
1

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Met Ala
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Ala Arg Ala Tyr Val Met Gly
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Ser Tyr Ala Met Gly
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Ser Thr Tyr Val Met Gly
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Ser Thr Tyr Val Met Gly
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Arg Ser Ala Met Gly
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Arg Ser Ala Met Gly
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Arg Ser Ala Met Gly
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Arg Ser Ala Met Gly
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Met Gly
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Met Gly
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Ser Tyr Ala Met Gly
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Ser Tyr Ala Val Gly
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Asn Tyr Val Met Gly
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Arg Tyr Val Met Gly
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Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
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<400> 252

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

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

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

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Gly

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<400> 313

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

Gly

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

Gly

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

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<400> 316

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

Gly

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<400> 317

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

<210> 318
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<400> 318

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

Gly

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

Gly

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

Gly

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

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

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<400> 323

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

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<400> 324

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

Gly

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<400> 325

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

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<400> 326

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

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<400> 327

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

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

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Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
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Gly

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

Gly

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

Gly

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

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

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

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

Gly

<210> 336
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<400> 336

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

Gly

<210> 337
<211> 17
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<400> 337

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

Gly

<210> 338
<211> 16
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<400> 338

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

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

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

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<400> 341

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

Asp

<210> 342
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<400> 342

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

Asp

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

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1 5 10 15

Asp

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1 5 10 15

Asp

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

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1 5 10 15

Asp

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<400> 348

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

<210> 349
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<400> 349

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

<210> 350
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<400> 350

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

Gly

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

Gly

<210> 352
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<400> 352

Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
1 5 10 15

Gly

<210> 353
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Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
1 5 10 15

Gly

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Gly

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Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
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Gly

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1 5 10 15

Gly

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1 5 10 15

Gly

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Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
1 5 10 15

Gly

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Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
1 5 10 15

Gly

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1 5 10 15

Gly

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<400> 361

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

Gly

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<400> 362

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

Gly

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<400> 363

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

Gly

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<400> 364

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

Gly

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

Gly

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1 5 10 15

Gly

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Gly

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Gly

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1 5 10 15

Gly

<210> 370
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<400> 370

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

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<400> 371

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

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<400> 372

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

Asp

<210> 373
<211> 17
<212> PRT
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<400> 373

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

Asp

<210> 374
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<212> PRT
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<220>
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<400> 374

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

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

<210> 375
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<400> 375

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

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

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Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr 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 Gly
20 25 30

<210> 377
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<400> 377

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

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

<210> 378
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<400> 378

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

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

<210> 379
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<400> 379

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

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

<210> 380
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<220>
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<400> 380

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

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

<210> 381
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<400> 381

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

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

<210> 382
<211> 32

<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 382

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

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

<210> 383
<211> 32
<212> PRT
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<220>
<223> FR3 sequence

<400> 383

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

<210> 384
<211> 32
<212> PRT
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<220>
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<400> 384

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

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

<210> 385
<211> 32
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<220>
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<400> 385

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1               5                   10                  15

Met Lys Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Gly
            20                  25                  30
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<210> 386
<211> 32
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<220>
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<400> 386

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

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala
            20                  25                  30
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<210> 387
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 387

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Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Ala Asp 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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<210> 388
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 388

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

Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
            20                  25                  30
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<210> 389
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 389

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

<210> 390
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 390

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

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

<210> 391
<211> 32
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<213> Artificial

<220>
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<400> 391

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

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

<210> 392
<211> 32
<212> PRT
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<220>
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<400> 392

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

<210> 393
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 393

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

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

<210> 394
<211> 32
<212> PRT
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<220>
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<400> 394

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

<210> 395
<211> 32
<212> PRT
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<220>
<223> FR3 sequence

<400> 395

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

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

<210> 396
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 396

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

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

<210> 397
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 397

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

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

<210> 398
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 398

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

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

<210> 399

<211> 32
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<213> Artificial

<220>
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<400> 399

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

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

<210> 400
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 400

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

<210> 401
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 401

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

<210> 402
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 402

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

<210> 403
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 403

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

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

<210> 404
<211> 32
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<220>
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<400> 404

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

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

<210> 405
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 405

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

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

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            20                  25                  30


<210>  406
<211>  32
<212>  PRT
<213>  Artificial

<220>
<223>  FR3 sequence

<400>  406

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


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


<210>  407
<211>  32
<212>  PRT
<213>  Artificial

<220>
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<400>  407

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


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


<210>  408
<211>  32
<212>  PRT
<213>  Artificial

<220>
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<400>  408

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


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


<210>  409
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<220>
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<400> 409

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

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

<210> 410
<211> 32
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<400> 410

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

<210> 411
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 411

Arg Phe Ala 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

<210> 412
<211> 32
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<213> Artificial

<220>
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<400> 412

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

1 5 10 15

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

<210> 413
<211> 32
<212> PRT
<213> Artificial

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<400> 413

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

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

<210> 414
<211> 32
<212> PRT
<213> Artificial

<220>
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<400> 414

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

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

<210> 415
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 415

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

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

<210> 416
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 416

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

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

<210> 417
<211> 32
<212> PRT
<213> Artificial

<220>
<223> FR3 sequence

<400> 417

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

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

<210> 418
<211> 32
<212> PRT
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<220>
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<400> 418

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

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

<210> 419
<211> 32
<212> PRT
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<400> 419

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

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

<210> 420
<211> 32
<212> PRT
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<220>
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<400> 420

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

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

<210> 421
<211> 32
<212> PRT
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<220>
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<400> 421

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

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

<210> 422
<211> 32
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<400> 422

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

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

<210> 423
<211> 32
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<220>
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<400> 423

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

<210> 424
<211> 32
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<400> 424

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

<210> 425
<211> 32
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<400> 425

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

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

<210> 426
<211> 32
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<220>
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<400> 426

Arg Phe Thr Ile Ser Arg Asp His Ala Met Asn Thr Val Phe Leu Gln
1 5 10 15

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

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

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

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<400> 436

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

Tyr

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<400> 437

Asp Ala Asn Ser Gly Gly Leu Glu Tyr Asp Tyr
1 5 10

<210> 438
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<400> 438

Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr
1 5 10

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<400> 439

Gln Thr Ser Gly Ala Asp Phe Gly Thr Thr Pro Gln Arg Tyr Thr Tyr
1 5 10 15

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<400> 440

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

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<400> 441

Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His
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His Gln Pro Ser Gly Ser Tyr Tyr Ser Ala Glu Ala Tyr Ala Tyr
1 5 10 15

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<400> 443

Asp Ala Ser Pro Tyr Gly Tyr Leu Arg Glu Tyr Thr Ala Thr Arg Phe
1 5 10 15

Asp Tyr

<210> 444
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<400> 444

Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr
1 5 10 15

Thr Tyr

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<400> 445

Glu Arg Thr Tyr Gly Ser Asn Tyr Thr Arg Pro Thr Ala Trp Asn Tyr
1 5 10 15

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Val Arg Arg Tyr Gly Ser Pro Pro His Asp Gly Ser Ser Tyr Glu Tyr
1 5 10 15

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<400> 447

Leu Arg Gly Leu Gly Leu Glu Tyr Asp Ser Ala Lys Ser Tyr Ser Tyr
1 5 10 15

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<400> 448

Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp
1 5 10 15

Tyr

<210> 449
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<400> 449

Arg Ala Ser Gly Ser Ile Tyr Asn Arg Gly Ser Tyr Ala Tyr
1 5 10

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<400> 450

Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp
1 5 10 15

Tyr

<210> 451
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<400> 451

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

<210> 452
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<400> 452

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

Asp Tyr

<210> 453
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<400> 453

Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

<210> 454
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<400> 454

Tyr Leu Pro Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Thr Lys Tyr
1 5 10 15

Glu Tyr

<210> 455
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<400> 455

Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Phe Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

<210> 456
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<400> 456

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

Asp Tyr

<210> 457
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<400> 457

Lys Leu Gln Ile Gly Gly Arg Trp His Asn Leu Asn Asp Tyr Gly Tyr
1 5 10 15

<210> 458
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<400> 458

Lys Ala Leu Leu Gly Met Thr Asn Pro Ala Gly Tyr Glu Tyr
1 5 10

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

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Leu Arg Gly Leu Gly Leu Glu Tyr Asp Ser Ala Lys Ser Tyr Ser Tyr
1 5 10 15

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Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp
1 5 10 15

Tyr

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Arg Ala Ser Gly Ser Ile Phe Asn Arg Gly Ser Tyr Ala Tyr
1 5 10

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Arg Ala Ser Gly Ser Ile Phe Asn Arg Gly Ser Tyr Ala Tyr
1 5 10

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Arg Ala Ser Gly Ser Ile Phe Asn Arg Gly Ser Tyr Ala Tyr
1 5 10

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<400> 465

Thr Met Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp
1 5 10 15

Tyr

<210> 466
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<400> 466

Thr Thr Pro Thr Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Glu
1 5 10 15

Tyr

<210> 467
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<212> PRT
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<400> 467

Thr Thr Pro Thr Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Glu
1 5 10 15

Tyr

<210> 468
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<400> 468

Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp
1 5 10 15

Tyr

<210> 469
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<400> 469

Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp
1 5 10 15

Tyr

<210> 470
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<400> 470

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

1 5 10 15

His

<210> 471
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<400> 471

Thr Thr Pro Ser Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Glu
1 5 10 15

Tyr

<210> 472
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<400> 472

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

Asp Tyr

<210> 473
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<400> 473

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

Asp Tyr

<210> 474
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<400> 474

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

Asp Tyr

<210> 475
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<400> 475

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

Asp Tyr

<210> 476
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<400> 476

Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

<210> 477
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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Asn Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

<210> 479
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Tyr Arg Arg Thr Tyr Ile Ser Ile Thr Tyr Ser Glu Ser Ser Asp Tyr
1 5 10 15

Asp Tyr

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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Asn Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

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Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
1 5 10 15

Asp Tyr

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Tyr Val Arg Thr Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Thr Lys Tyr
1 5 10 15

Glu Tyr

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Tyr Leu Arg Gly Pro Tyr Tyr Ser Ser Phe Tyr Asp Ser Thr Lys Tyr
1 5 10 15

Glu Tyr

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<400> 487

Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

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Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

<210> 489
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Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

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Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

<210> 491
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Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

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Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

<210> 493
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Tyr Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr
1 5 10 15

Glu Tyr

<210> 494
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<400> 494

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

Asp Tyr

<210> 495
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<400> 495

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

Asp Tyr

<210> 496
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<400> 496

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

Tyr

<210> 497
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<400> 497

Thr Thr Pro Thr Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Glu
1 5 10 15

Tyr

<210> 498
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<400> 498

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

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<400> 499

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

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1 5 10

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Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
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<223> FR4 sequence

<400> 537

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

<210> 538
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 538

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

<210> 539
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 539

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

<210> 540
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 540

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

<210> 541
<211> 11
<212> PRT

<213> Artificial

<220>
<223> FR4 sequence

<400> 541

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

<210> 542
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 542

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

<210> 543
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 543

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

<210> 544
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 544

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

<210> 545
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 545

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

<210> 546
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 546

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

<210> 547
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 547

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

<210> 548
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 548

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

<210> 549
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 549

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

<210> 550
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 550

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

<210> 551
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 551

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

<210> 552
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 552

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

<210> 553
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 553

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

<210> 554
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 554

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

<210> 555
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 555

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

<210> 556
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 556

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

<210> 557
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 557

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

<210> 558
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 558

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


<210>  559
<211>  11
<212>  PRT
<213>  Artificial

<220>
<223>  FR4 sequence

<400>  559

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


<210>  560
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  560

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


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


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


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


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


Ala Ala Val Asn Arg Arg Gly Trp Glu Phe Trp Arg Leu Ala Ser Gly
            100                 105                 110


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

<210> 561
<211> 120
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 561

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

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

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

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

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

Ala Lys Asp Ala Asn Ser Gly Gly Leu Glu Tyr Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 562
<211> 120
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 562

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

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

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

```
        35                  40                  45

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

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

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

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

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

<210> 563
<211> 125
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 563

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

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

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

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

Ala Ala Gln Thr Ser Gly Ala Asp Phe Gly Thr Thr Pro Gln Arg Tyr
            100                 105                 110
```

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


<210>  564
<211>  124
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  564

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 Ile Gly Gly His
            20                  25                  30


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


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


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


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


Ala Ala Arg Ile Arg Gly Lys Val Thr Val Asp Asn Phe Asp Tyr Ala
            100                 105                 110


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


<210>  565
<211>  122
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  565

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


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

```
            20                  25                  30

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

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

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

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

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

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


<210>  566
<211>  124
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  566

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

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

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

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

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

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

```
Ala Ala His Gln Pro Ser Gly Ser Tyr Tyr Ser Ala Glu Ala Tyr Ala
            100                 105                 110

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

<210>  567
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  567

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

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

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

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

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

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

Ala Gly Asp Ala Ser Pro Tyr Gly Tyr Leu Arg Glu Tyr Thr Ala Thr
            100                 105                 110

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

<210>  568
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  568

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

```
1               5                   10                  15

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

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

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


<210>  569
<211>  125
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  569

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

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

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

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

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

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


<210>  570
<211>  125
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  570

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 Lys
            20                  25                  30

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

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

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

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

Val Ala Val Arg Arg Tyr Gly Ser Pro Pro His Asp Gly Ser Ser Tyr
            100                 105                 110

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


<210>  571
<211>  122
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence
```

<400> 571

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

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

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

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

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

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

Arg Gly Leu Gly Leu Glu Tyr Asp Ser Ala Lys Ser Tyr Ser Tyr Trp
100 105 110

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

<210> 572
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 572

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 Arg Ser Tyr
20 25 30

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

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

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

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

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

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

<210> 573
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 573

```
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 Ser Ser Tyr Tyr
            20                  25                  30

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

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

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

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

Ala Arg Ala Ser Gly Ser Ile Tyr Asn Arg Gly Ser Tyr Ala Tyr Trp
            100                 105                 110

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

<210> 574
<211> 126
<212> PRT

<213> Artificial

<220>
<223> Nanobody sequence

<400> 574

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

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

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

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

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

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

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

<210> 575
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 575

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 Val Ala Ser Arg Arg Thr Phe Ser Ser Tyr
20 25 30

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

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

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

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

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

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

<210> 576
<211> 128
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 576

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

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

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

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

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

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

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

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

<210> 577
<211> 150
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 577

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 Arg Ser
20 25 30

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

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

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

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

Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
130 135 140

His His His His His His
145 150

<210> 578
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 578

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Val Thr Met Gly
            20                  25                  30

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

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

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

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

Leu Pro Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Thr Lys Tyr Glu
            100                 105                 110

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

<210> 579
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 579

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Phe Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110

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

<210>  580
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  580

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 Val Ala Ser Arg Arg Thr Phe Asn Ser Tyr
            20                  25                  30

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

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

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

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

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

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

<210>  581
<211>  125
<212>  PRT
<213>  Artificial

<220>
```

<223> Nanobody sequence

<400> 581

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Glu Arg Thr Ser Arg Asn Tyr
            20                  25                  30

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

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

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

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

Ala Ala Lys Leu Gln Ile Gly Gly Arg Trp His Asn Leu Asn Asp Tyr
            100                 105                 110

Gly Tyr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120                 125
```

<210> 582
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 582

```
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 Leu Thr Thr Val Tyr Thr
            20                  25                  30

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

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

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

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

Ala Lys Ala Leu Leu Gly Met Thr Asn Pro Ala Gly Tyr Glu Tyr Trp
            100                 105                 110

Gly Gln Glu Thr Gln Val Thr Val Ser Ser
        115                 120


<210>  583
<211>  123
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  583

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

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

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

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

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

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

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

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


<210>  584
<211>  122
```

<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 584

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

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

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

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

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

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

Arg Gly Leu Gly Leu Glu Tyr Asp Ser Ala Lys Ser Tyr Ser Tyr Trp
100 105 110

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

<210> 585
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<400> 585

Glu Val Xaa 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 Arg Ser Tyr

```
            20                  25                  30

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

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

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

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

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

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

<210> 586
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 586

```
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 Leu Thr Ser Ser Arg Tyr
            20                  25                  30

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

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

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

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

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


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


<210>  587
<211>  122
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  587

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


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


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


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


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


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


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


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


<210>  588
<211>  122
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  588

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

1 5 10 15

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

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

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

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

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

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

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

<210> 589
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 589

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

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

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

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

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

Ala Ala Thr Met Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

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

<210> 590
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 590

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

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

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

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

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

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

Ala Ala Thr Thr Pro Thr Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

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

<210> 591
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 591

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 Ala Gly Cys Thr Phe Arg Asn Tyr
20 25 30

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

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

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

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

Ala Ala Thr Thr Pro Thr Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

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

<210> 592
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 592

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

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

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

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

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

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

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


<210>  593
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  593

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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

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

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

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

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

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

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


<210>  594
<211>  126
<212>  PRT
```

<213> Artificial

<220>
<223> Nanobody sequence

<400> 594

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 Ala Gly Tyr Thr Phe Arg Ala Tyr
20 25 30

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

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

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

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

Ala Ala Thr Thr Pro Val Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

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

<210> 595
<211> 128
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 595

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

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

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

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

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

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

Tyr Cys Ala Ala Thr Thr Pro Ser Thr Ser Tyr Leu Pro Arg Ser Glu
            100                 105                 110

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

<210> 596
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 596

```
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 Val Ala Ser Arg Arg Thr Phe Ser Ser Tyr
            20                  25                  30

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

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

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

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

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

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

<210> 597
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 597

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 Val Ala Ser Lys Arg Thr Phe Ala Ser Tyr
20 25 30

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

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

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

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

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

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

<210> 598
<211> 128
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 598

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

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

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

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

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

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

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

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

<210> 599
<211> 128
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 599

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

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

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

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

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

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

Cys Ala Ala Gly Arg Gly Tyr Gly Leu Leu Ser Glu Tyr Thr Gln Ala
            100                 105                 110
```

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


<210>  600
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  600

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 Arg Ser
            20                  25                  30


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


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


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


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


Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110


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


<210>  601
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  601

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 Arg Ser
            20                  25                  30

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

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

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

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

Ala Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Asn Glu Ser Ser
            100                 105                 110

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


<210>  602
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  602

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 Arg Ser
            20                  25                  30

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

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

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

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

<210> 603
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 603

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 Arg Ser
20 25 30

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

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

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ile Thr Tyr Ser Glu Ser Ser
100 105 110

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

<210> 604
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 604

```
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 Ile Ser
            20                  25                  30

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

Cys Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

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


<210>  605
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  605

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 Arg Ser
            20                  25                  30

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

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

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

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


<210>  606
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  606

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 Arg Ser
            20                  25                  30

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

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

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

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


<210>  607
<211>  127
<212>  PRT
<213>  Artificial

<220>
```

<223> Nanobody sequence

<400> 607

```
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 Arg Ser
            20                  25                  30

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

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

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

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

Ala Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Asn Glu Ser Ser
            100                 105                 110

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

<210> 608
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 608

```
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 Arg Ser
            20                  25                  30

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

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60
```

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

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

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

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

<210> 609
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 609

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

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

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

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

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

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

Val Arg Thr Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Thr Lys Tyr Glu
            100                 105                 110

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

<210> 610
<211> 124

<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 610

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

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

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

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

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

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

Leu Arg Gly Pro Tyr Tyr Ser Ser Phe Tyr Asp Ser Thr Lys Tyr Glu
100 105 110

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

<210> 611
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 611

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110

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

<210> 612
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 612

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110

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

<210> 613
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 613

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
100 105 110

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

<210> 614
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 614

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110

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

<210> 615
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 615

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110
```

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


<210>  616
<211>  124
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  616

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


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


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


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


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


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


Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110


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


<210>  617
<211>  124
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  617

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

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

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

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

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

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

Leu Arg Ser Pro Tyr Tyr Ser Ser Tyr Tyr Asp Ser Ala Lys Tyr Glu
            100                 105                 110

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

<210> 618
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 618

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

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

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

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

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

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

<210>  619
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  619

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

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

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

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

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

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

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

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

<210>  620
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  620
```

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

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

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

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

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

Ala Ala Thr Thr Pro Val Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

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

<210> 621
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 621

```
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 Ala Gly Phe Thr Phe Arg Arg Tyr
            20                  25                  30

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

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

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

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

Ala Ala Thr Thr Pro Thr Thr Ser Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

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

<210> 622
<211> 249
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 622

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

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

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

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

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

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

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

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

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

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

145 150 155 160

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

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

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

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

Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly
225 230 235 240

Gln Gly Thr Gln Val Thr Val Ser Ser
245

<210> 623
<211> 251
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 623

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

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

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

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

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

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

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

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

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

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

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

Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val
            180                 185                 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr
        195                 200                 205

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys
    210                 215                 220

Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His
225                 230                 235                 240

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250
```

<210> 624
<211> 256
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 624

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

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

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

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

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

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

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

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

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

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

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

Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser
            180                 185                 190

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

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

Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu
225                 230                 235                 240

Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255
```

<210> 625
<211> 255
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 625

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

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

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

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

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

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

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

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

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

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

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

Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser
180 185 190

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

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

Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg
225 230 235 240

```
Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255


<210>  626
<211>  255
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  626

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


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


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


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


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


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


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


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


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


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


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


Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser
            180                 185                 190
```

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

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

Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg
225                 230                 235                 240

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


<210>  627
<211>  256
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  627

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

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

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

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

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

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

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

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

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

```
    130                 135                 140

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

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

Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser
            180                 185                 190

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

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

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

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


<210>  628
<211>  251
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  628

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

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

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

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

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

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

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln
    130                 135                 140

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser
145                 150                 155                 160

Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg
                165                 170                 175

Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn
        195                 200                 205

Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr
225                 230                 235                 240

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250


<210>  629
<211>  253
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  629

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30
```

```
Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln
    130                 135                 140

Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr
145                 150                 155                 160

Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
                165                 170                 175

Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp
            180                 185                 190

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr
        195                 200                 205

Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr
    210                 215                 220

Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr
225                 230                 235                 240

Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250
```

<210> 630
<211> 258
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 630

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
20 25 30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
85 90 95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
115 120 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
130 135 140

Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe
145 150 155 160

Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
165 170 175

Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala
180 185 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
195 200 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val
210 215 220

```
Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser
225                 230                 235                 240

Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
                245                 250                 255

Ser Ser
```

<210> 631
<211> 257
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 631

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145                 150                 155                 160
```

```
Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
                165                 170                 175

Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
        195                 200                 205

Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp
225                 230                 235                 240

Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
                245                 250                 255

Ser
```

<210> 632
<211> 257
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 632

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
```

```
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe
145                 150                 155                 160

Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
                165                 170                 175

Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val
            180                 185                 190

Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn
        195                 200                 205

Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser
225                 230                 235                 240

Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
                245                 250                 255

Ser
```

<210> 633
<211> 258
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 633

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15
```

```
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
145                 150                 155                 160

Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
                165                 170                 175

Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly
            180                 185                 190

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn
        195                 200                 205

Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser
225                 230                 235                 240

Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
                245                 250                 255

Ser Ser
```

<210> 634
<211> 256
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 634

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
100 105 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Lys Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val
145 150 155 160

Ser Gly Arg Thr Ser Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly
165 170 175

Pro Gly Lys Gly Arg Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp
180 185 190

```
Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Thr Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser
225                 230                 235                 240

Leu Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255


<210>  635
<211>  258
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  635

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140
```

```
Gly Gly Leu Met Gln Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Val Thr Tyr Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn
            180                 185                 190

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Gly Lys His Thr Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr
225                 230                 235                 240

Tyr Ala Ser Ser Tyr Arg His Trp Gly Gln Gly Thr Gln Val Thr Val
                245                 250                 255

Ser Ser
```

<210> 636
<211> 263
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 636

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala
145                 150                 155                 160

Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly
            180                 185                 190

Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser
225                 230                 235                 240

Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly
                245                 250                 255

Thr Gln Val Thr Val Ser Ser
            260
```

<210> 637
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 637

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
```

```
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly
            180                 185                 190

Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr
225                 230                 235                 240

Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255
```

Gln Val Thr Val Ser Ser
260

<210> 638
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 638

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
100 105 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145 150 155 160

Ala Gly Gly Thr Phe Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala
165 170 175

Pro Gly Lys Glu Arg Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser

```
            180                 185                 190

Trp Thr Gly Tyr Val Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Thr Lys Asn Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr
225                 230                 235                 240

Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 639
<211> 263
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 639

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110
```

```
Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly
            180                 185                 190

Thr Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile
225                 230                 235                 240

Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly
                245                 250                 255

Thr Gln Val Thr Val Ser Ser
            260
```

<210> 640
<211> 255
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 640

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45
```

```
Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Lys Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser
145                 150                 155                 160

Gly Arg Thr Ser Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro
                165                 170                 175

Gly Lys Gly Arg Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn
            180                 185                 190

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Thr Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu
225                 230                 235                 240

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255
```

<210> 641
<211> 257
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 641

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
130 135 140

Gly Leu Met Gln Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145 150 155 160

Gly Val Thr Tyr Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro
165 170 175

Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr
180 185 190

Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
195 200 205

Gly Lys His Thr Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp
210 215 220

Thr Ala Val Tyr Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr
225 230 235 240

```
Ala Ser Ser Tyr Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser
                245                 250                 255

Ser
```

<210> 642
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 642

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser
145                 150                 155                 160

Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175
```

```
Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser
            180                 185                 190

Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu
225                 230                 235                 240

Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 643
<211> 261
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 643

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
```

```
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Arg Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser
            180                 185                 190

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr
225                 230                 235                 240

Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
                245                 250                 255

Val Thr Val Ser Ser
            260


<210>  644
<211>  261
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  644

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 Arg Ser Tyr
            20                  25                  30
```

```
Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala
145                 150                 155                 160

Gly Gly Thr Phe Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Arg Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp
            180                 185                 190

Thr Gly Tyr Val Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Thr Lys Asn Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr
225                 230                 235                 240

Leu Pro Arg Ser Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
                245                 250                 255

Val Thr Val Ser Ser
            260

<210>  645
```

<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 645

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
130 135 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145 150 155 160

Gly Arg Thr Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro
165 170 175

Gly Lys Glu Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr
180 185 190

Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
195 200 205

```
Asn Ala Gln Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser
225                 230                 235                 240

Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 646
<211> 255
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 646

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140
```

```
Lys Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser
145                 150                 155                 160

Gly Arg Thr Ser Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro
                165                 170                 175

Gly Lys Gly Arg Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn
            180                 185                 190

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Thr Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu
225                 230                 235                 240

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255
```

<210> 647
<211> 257
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 647

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
```

```
Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Met Gln Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Val Thr Tyr Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr
            180                 185                 190

Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
        195                 200                 205

Gly Lys His Thr Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp
    210                 215                 220

Thr Ala Val Tyr Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr
225                 230                 235                 240

Ala Ser Ser Tyr Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser
                245                 250                 255

Ser
```

<210> 648
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 648

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
```

```
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser
145                 150                 155                 160

Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser
            180                 185                 190

Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu
225                 230                 235                 240

Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 649
<211> 261
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 649

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
130 135 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145 150 155 160

Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro
165 170 175

Gly Lys Glu Arg Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser
180 185 190

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp

```
        195                 200                 205

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr
225                 230                 235                 240

Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
                245                 250                 255

Val Thr Val Ser Ser
            260
```

<210> 650
<211> 261
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 650

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125
```

```
Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala
145                 150                 155                 160

Gly Gly Thr Phe Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Arg Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp
            180                 185                 190

Thr Gly Tyr Val Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Thr Lys Asn Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr
225                 230                 235                 240

Leu Pro Arg Ser Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
                245                 250                 255

Val Thr Val Ser Ser
            260
```

<210> 651
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 651

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60
```

```
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Arg Thr Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr
            180                 185                 190

Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Gln Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser
225                 230                 235                 240

Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 652
<211> 256
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 652

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Lys Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val
145 150 155 160

Ser Gly Arg Thr Ser Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly
165 170 175

Pro Gly Lys Gly Arg Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp
180 185 190

Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
195 200 205

Asp Asn Ala Thr Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
210 215 220

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser
225 230 235 240

```
Leu Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
                245                 250                 255


<210>  653
<211>  258
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  653

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 Arg Ser
            20                  25                  30


Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45


Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80


Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95


Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110


Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125


Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140


Gly Gly Leu Met Gln Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160


Ser Gly Val Thr Tyr Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala
                165                 170                 175


Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn
            180                 185                 190
```

```
Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Gly Lys His Thr Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr
225                 230                 235                 240

Tyr Ala Ser Ser Tyr Arg His Trp Gly Gln Gly Thr Gln Val Thr Val
                245                 250                 255

Ser Ser
```

<210> 654
<211> 263
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 654

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
```

```
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala
145                 150                 155                 160

Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly
            180                 185                 190

Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser
225                 230                 235                 240

Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly
                245                 250                 255

Thr Gln Val Thr Val Ser Ser
            260
```

<210> 655
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 655

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45
```

```
Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly
            180                 185                 190

Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr
225                 230                 235                 240

Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 656
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 656

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145 150 155 160

Ala Gly Gly Thr Phe Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala
165 170 175

Pro Gly Lys Glu Arg Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser
180 185 190

Trp Thr Gly Tyr Val Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
195 200 205

Asp Asn Thr Lys Asn Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro
210 215 220

```
Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr
225                 230                 235                 240

Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 657
<211> 263
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 657

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160
```

```
Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly
            180                 185                 190

Thr Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile
225                 230                 235                 240

Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly
                245                 250                 255

Thr Gln Val Thr Val Ser Ser
            260
```

<210> 658
<211> 260
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 658

```
Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
```

```
Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
    130                 135                 140

Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly Ser Leu Arg Leu
145                 150                 155                 160

Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr Asn Met Ala Trp
                165                 170                 175

Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val Gly Arg Ile Tyr
            180                 185                 190

Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
        195                 200                 205

Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr Leu Gln Met Asn
    210                 215                 220

Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Gly Lys Thr
225                 230                 235                 240

Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val
                245                 250                 255

Thr Val Ser Ser
            260
```

<210> 659
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 659

```
Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
```

```
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
    130                 135                 140

Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly Ser Leu Arg Leu
145                 150                 155                 160

Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr Thr Ala Ser Trp
                165                 170                 175

Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser
            180                 185                 190

Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
        195                 200                 205

Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu Gln Met Asn Ser
    210                 215                 220

Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala Ile Arg Ala Thr
225                 230                 235                 240

Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 660
<211> 267
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 660

Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
20 25 30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
35 40 45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
130 135 140

Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu
145 150 155 160

Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly Trp
165 170 175

Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Asn
180 185 190

Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe

```
        195                 200                 205

Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn
    210                 215                 220

Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly Ser
225                 230                 235                 240

Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr Tyr
                245                 250                 255

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 661
<211> 266
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 661

```
Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125
```

```
Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
    130                 135                 140

Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu
145                 150                 155                 160

Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly Trp
                165                 170                 175

Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ser Ile Thr
            180                 185                 190

Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
        195                 200                 205

Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn
    210                 215                 220

Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr Ile
225                 230                 235                 240

Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp
                245                 250                 255

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 662
<211> 266
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 662

```
Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60
```

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
    130                 135                 140

Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu
145                 150                 155                 160

Ser Cys Ala Ala Ala Gly Gly Thr Phe Arg Asn Tyr Val Met Gly Trp
                165                 170                 175

Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Thr Ala Ile Ser
            180                 185                 190

Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val Lys Asp Arg Phe
        195                 200                 205

Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr Leu Gln Met Ala
    210                 215                 220

Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Thr Thr
225                 230                 235                 240

Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp Tyr Trp
                245                 250                 255

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 663
<211> 267
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 663

Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
20 25 30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
35 40 45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
130 135 140

Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu
145 150 155 160

Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly Trp
165 170 175

Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Gly Phe Ile Thr
180 185 190

Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg Phe
195 200 205

Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met Asn
210 215 220

Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr Arg
225 230 235 240

```
Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp Tyr
                245                 250                 255

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 664
<211> 262
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 664

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
    130                 135                 140

Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly Ser Leu
145                 150                 155                 160

Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr Asn Met
                165                 170                 175
```

```
Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val Gly Arg
            180                 185                 190

Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly
        195                 200                 205

Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr Leu Gln
    210                 215                 220

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Gly
225                 230                 235                 240

Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln Gly Thr
                245                 250                 255

Gln Val Thr Val Ser Ser
            260
```

<210> 665
<211> 264
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 665

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
```

```
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
    130                 135                 140

Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly Ser Leu
145                 150                 155                 160

Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr Thr Ala
                165                 170                 175

Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala
            180                 185                 190

Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
        195                 200                 205

Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu Gln Met
    210                 215                 220

Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala Ile Arg
225                 230                 235                 240

Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp Gly Gln
                245                 250                 255

Gly Thr Gln Val Thr Val Ser Ser
            260


<210>  666
<211>  269
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  666

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30
```

```
Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
    130                 135                 140

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu
145                 150                 155                 160

Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met
                165                 170                 175

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala
            180                 185                 190

Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly
        195                 200                 205

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln
    210                 215                 220

Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
225                 230                 235                 240

Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr
                245                 250                 255

Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 667

<211> 268
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 667

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
    130                 135                 140

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu
145                 150                 155                 160

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Pro Met
                165                 170                 175

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ser
            180                 185                 190

Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
        195                 200                 205
```

```
Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln
    210                 215                 220

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala
225                 230                 235                 240

Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp
                245                 250                 255

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265


<210>  668
<211>  268
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  668

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
    130                 135                 140
```

```
Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu
145                 150                 155                 160

Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe Arg Asn Tyr Val Met
                165                 170                 175

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Thr Ala
            180                 185                 190

Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val Lys Asp
        195                 200                 205

Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr Leu Gln
    210                 215                 220

Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
225                 230                 235                 240

Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp
                245                 250                 255

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 669
<211> 269
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 669

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80
```

```
Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
    130                 135                 140

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu
145                 150                 155                 160

Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met
                165                 170                 175

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Gly Phe
            180                 185                 190

Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys Gly
        195                 200                 205

Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln
    210                 215                 220

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Gly Val
225                 230                 235                 240

Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr
                245                 250                 255

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 670
<211> 267
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 670

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
```

```
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser
                165                 170                 175

Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg
            180                 185                 190

Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala
        195                 200                 205

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn
    210                 215                 220

Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr
                245                 250                 255
```

```
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265


<210>  671
<211>  269
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  671

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                  10                  15


Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95


Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110


Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125


Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140


Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln
145                 150                 155                 160


Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr
                165                 170                 175


Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
```

```
            180                 185                 190

Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr
    210                 215                 220

Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr
                245                 250                 255

Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265


<210>  672
<211>  274
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  672

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110
```

```
Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe
                165                 170                 175

Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala
        195                 200                 205

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
    210                 215                 220

Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser
                245                 250                 255

Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
            260                 265                 270

Ser Ser
```

<210> 673
<211> 273
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 673

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
                165                 170                 175

Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
        195                 200                 205

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
    210                 215                 220

Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp
                245                 250                 255

Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270
```

Ser

<210> 674
<211> 273
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 674

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe
                165                 170                 175

Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190
```

```
Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val
        195                 200                 205

Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn
    210                 215                 220

Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser
                245                 250                 255

Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 675
<211> 274
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 675

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110
```

```
Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
                165                 170                 175

Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly
        195                 200                 205

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn
    210                 215                 220

Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser
                245                 250                 255

Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
            260                 265                 270

Ser Ser
```

<210> 676
<211> 266
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 676

```
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 Arg Ser Tyr
```

```
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala
145                 150                 155                 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser
                165                 170                 175

Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu
            180                 185                 190

Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr
    210                 215                 220

Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp
                245                 250                 255

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 677
<211> 268
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 677

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr
145 150 155 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser
165 170 175

Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
180 185 190

Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser

```
        195                 200                 205

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met
    210                 215                 220

Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe
225                 230                 235                 240

Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg
                245                 250                 255

His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265


<210>  678
<211>  273
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  678

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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125
```

```
Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145                 150                 155                 160

Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg
                165                 170                 175

Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
    210                 215                 220

Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr
                245                 250                 255

Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 679
<211> 272
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 679

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45
```

```
Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145                 150                 155                 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg
                165                 170                 175

Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
    210                 215                 220

Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr
                245                 250                 255

Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265                 270
```

<210> 680
<211> 272
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 680

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145 150 155 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe Arg
165 170 175

Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
180 185 190

Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp
195 200 205

Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr
210 215 220

```
Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu
                245                 250                 255

Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265                 270
```

<210> 681
<211> 273
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 681

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145                 150                 155                 160
```

```
Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
                165                 170                 175

Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro
    210                 215                 220

Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu
                245                 250                 255

Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 682
<211> 266
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 682

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
```

65 70 75 80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala
145 150 155 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser
165 170 175

Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu
180 185 190

Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp
195 200 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr
210 215 220

Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
225 230 235 240

Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp
245 250 255

Gly Gln Gly Thr Gln Val Thr Val Ser Ser
260 265

<210> 683
<211> 268
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 683

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr
145                 150                 155                 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser
                165                 170                 175

Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser
        195                 200                 205

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met
    210                 215                 220

Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe
225                 230                 235                 240

Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg
```

```
                245                 250                 255

His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265


<210>  684
<211>  273
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  684

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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30


Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45


Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60


Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80


Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95


Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110


Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125


Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140


Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145                 150                 155                 160


Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg
                165                 170                 175
```

```
Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
    210                 215                 220

Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr
                245                 250                 255

Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 685
<211> 272
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 685

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
```

```
Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145                 150                 155                 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg
                165                 170                 175

Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr
    210                 215                 220

Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr
                245                 250                 255

Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265                 270
```

<210> 686
<211> 272
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 686

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30
```

```
Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145                 150                 155                 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe Arg
                165                 170                 175

Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
            180                 185                 190

Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp
        195                 200                 205

Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr
    210                 215                 220

Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu
                245                 250                 255

Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265                 270
```

<210> 687
<211> 273
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 687

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala
145 150 155 160

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser
165 170 175

Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu
180 185 190

Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu
195 200 205

```
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro
    210                 215                 220

Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu
                245                 250                 255

Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 688
<211> 267
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 688

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
```

```
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser
                165                 170                 175

Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg
            180                 185                 190

Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala
        195                 200                 205

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn
    210                 215                 220

Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr
                245                 250                 255

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 689
<211> 269
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 689

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45
```

```
Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln
145                 150                 155                 160

Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr
                165                 170                 175

Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp
        195                 200                 205

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr
    210                 215                 220

Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr
225                 230                 235                 240

Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr
                245                 250                 255

Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265
```

<210> 690
<211> 274
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 690

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145 150 155 160

Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe
165 170 175

Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
180 185 190

Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala
195 200 205

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
210 215 220

```
Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser
                245                 250                 255

Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
            260                 265                 270

Ser Ser
```

<210> 691
<211> 273
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 691

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140
```

```
Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
                165                 170                 175

Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
        195                 200                 205

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
    210                 215                 220

Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp
                245                 250                 255

Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 692
<211> 273
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 692

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60
```

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe
                165                 170                 175

Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val
        195                 200                 205

Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn
    210                 215                 220

Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser
                245                 250                 255

Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 693
<211> 274
<212> PRT

<213> Artificial

<220>
<223> Nanobody sequence

<400> 693

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
145                 150                 155                 160

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
                165                 170                 175

Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
            180                 185                 190

Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly
        195                 200                 205

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn
    210                 215                 220
```

```
Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
225                 230                 235                 240

Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser
                245                 250                 255

Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
            260                 265                 270

Ser Ser
```

<210> 694
<211> 373
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 694

```
Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
```

```
    130                 135                 140

Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
145                 150                 155                 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp
                165                 170                 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
            180                 185                 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu
        195                 200                 205

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220

Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val
225                 230                 235                 240

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly Ser Leu Arg
            260                 265                 270

Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr Asn Met Ala
        275                 280                 285

Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val Gly Arg Ile
    290                 295                 300

Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
305                 310                 315                 320

Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr Leu Gln Met
                325                 330                 335

Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Gly Lys
            340                 345                 350

Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln
        355                 360                 365

Val Thr Val Ser Ser
    370
```

<210> 695
<211> 375
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 695

Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
20 25 30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
35 40 45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
145 150 155 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp
165 170 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
180 185 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu

```
        195                 200                 205

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220

Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val
225                 230                 235                 240

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly Ser Leu Arg
            260                 265                 270

Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr Thr Ala Ser
        275                 280                 285

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile
    290                 295                 300

Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
305                 310                 315                 320

Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu Gln Met Asn
                325                 330                 335

Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala Ile Arg Ala
            340                 345                 350

Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp Gly Gln Gly
        355                 360                 365

Thr Gln Val Thr Val Ser Ser
    370                 375


<210>  696
<211>  380
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  696

Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15
```

```
Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
    130                 135                 140

Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
145                 150                 155                 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp
                165                 170                 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
            180                 185                 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu
        195                 200                 205

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220

Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val
225                 230                 235                 240

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg
```

```
            260                 265                 270

Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly
        275                 280                 285

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile
    290                 295                 300

Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg
305                 310                 315                 320

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met
                325                 330                 335

Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly
            340                 345                 350

Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr
        355                 360                 365

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380


<210>  697
<211>  379
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  697

Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80
```

```
Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
    130                 135                 140

Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
145                 150                 155                 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp
                165                 170                 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
            180                 185                 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu
        195                 200                 205

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220

Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val
225                 230                 235                 240

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg
            260                 265                 270

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly
        275                 280                 285

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ser Ile
    290                 295                 300

Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
305                 310                 315                 320

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met
```

```
                325                 330                 335

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr
            340                 345                 350

Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr
        355                 360                 365

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375


<210>  698
<211>  379
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  698

Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
    130                 135                 140
```

```
Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
145                 150                 155                 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp
                165                 170                 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
            180                 185                 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu
        195                 200                 205

Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220

Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val
225                 230                 235                 240

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg
            260                 265                 270

Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe Arg Asn Tyr Val Met Gly
        275                 280                 285

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Thr Ala Ile
    290                 295                 300

Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val Lys Asp Arg
305                 310                 315                 320

Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr Leu Gln Met
                325                 330                 335

Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Thr
            340                 345                 350

Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr Asp Tyr
        355                 360                 365

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375
```

<210> 699

<211> 380
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 699

```
Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr
            20                  25                  30

Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val
        35                  40                  45

Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
    130                 135                 140

Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
145                 150                 155                 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp
                165                 170                 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
            180                 185                 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu
        195                 200                 205
```

```
Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220

Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Gln Val
225                 230                 235                 240

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg
            260                 265                 270

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly
        275                 280                 285

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Gly Phe Ile
    290                 295                 300

Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg
305                 310                 315                 320

Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met
                325                 330                 335

Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr
            340                 345                 350

Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp
        355                 360                 365

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380


<210>  700
<211>  375
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  700

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30
```

```
Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln Ala Gly Gly Ser
            260                 265                 270
```

```
Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser Ser Ile Tyr Asn
        275                 280                 285

Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg Glu Ser Val Gly
    290                 295                 300

Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala Asp Ser Val Lys
305                 310                 315                 320

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn Thr Val Tyr Leu
                325                 330                 335

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala
            340                 345                 350

Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr Trp Gly Gln Gly
        355                 360                 365

Thr Gln Val Thr Val Ser Ser
    370                 375
```

<210> 701
<211> 377
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 701

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95
```

```
Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly Ser
            260                 265                 270

Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr Thr
        275                 280                 285

Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala
    290                 295                 300

Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys Gly
305                 310                 315                 320

Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu Gln
                325                 330                 335
```

```
Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala Ile
            340                 345                 350

Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp Gly
        355                 360                 365

Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375
```

<210> 702
<211> 382
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 702

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160
```

```
Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser
            260                 265                 270

Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Ala
        275                 280                 285

Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala
    290                 295                 300

Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys
305                 310                 315                 320

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu
                325                 330                 335

Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala
            340                 345                 350

Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala
        355                 360                 365

Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380
```

<210> 703
<211> 381
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 703

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                  10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220
```

```
Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser
            260                 265                 270

Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Pro
        275                 280                 285

Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala
    290                 295                 300

Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
305                 310                 315                 320

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu
                325                 330                 335

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys Ala
            340                 345                 350

Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr
        355                 360                 365

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380
```

<210> 704
<211> 381
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 704

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45
```

```
Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser
            260                 265                 270

Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe Arg Asn Tyr Val
        275                 280                 285
```

```
Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Thr
    290                 295                 300

Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val Lys
305                 310                 315                 320

Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr Leu
                325                 330                 335

Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala
            340                 345                 350

Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln Tyr
        355                 360                 365

Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380
```

<210> 705
<211> 382
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 705

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Met Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110
```

```
Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Pro
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser
            260                 265                 270

Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala
        275                 280                 285

Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Gly
    290                 295                 300

Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys
305                 310                 315                 320

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu
                325                 330                 335

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Gly
            340                 345                 350
```

```
Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu
        355                 360                 365

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380


<210>  706
<211>  380
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  706

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175
```

```
Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr
        275                 280                 285

Ser Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly
    290                 295                 300

Arg Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr
                325                 330                 335

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp
        355                 360                 365

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380
```

<210> 707
<211> 382
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 707

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
100 105 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145 150 155 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
165 170 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
180 185 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
195 200 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
210 215 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225 230 235 240

```
Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met
            260                 265                 270

Gln Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr
        275                 280                 285

Tyr Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His
                325                 330                 335

Thr Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser
        355                 360                 365

Tyr Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380


<210>  708
<211>  387
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  708

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285

Phe Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300
```

```
Arg Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
                325                 330                 335

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr
        355                 360                 365

Ser Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr
    370                 375                 380

Val Ser Ser
385
```

<210> 709
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 709

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
```

```
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285

Phe Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
                325                 330                 335

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala
            340                 345                 350
```

```
Val Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg
        355                 360                 365

Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
    370                 375                 380

Ser Ser
385
```

<210> 710
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 710

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
```

145 150 155 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
165 170 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
180 185 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
195 200 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
210 215 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225 230 235 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
245 250 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
260 265 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr
275 280 285

Phe Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
290 295 300

Arg Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr
305 310 315 320

Val Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys
325 330 335

Asn Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala
340 345 350

Val Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg
355 360 365

Ser Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
370 375 380

Ser Ser
385

<210> 711
<211> 387
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 711

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
100 105 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145 150 155 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
165 170 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
180 185 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg

```
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285

Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr
305                 310                 315                 320

Gly Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln
                325                 330                 335

Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr
        355                 360                 365

Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr
    370                 375                 380

Val Ser Ser
385
```

<210> 712
<211> 379
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 712

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
```

```
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser
        275                 280                 285

Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg
    290                 295                 300

Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn
                325                 330                 335

Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr
        355                 360                 365

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375


<210>  713
<211>  381
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  713

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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60
```

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln
            260                 265                 270

Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr
        275                 280                 285

Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp
```

305 310 315 320

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr
325 330 335

Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr
340 345 350

Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr
355 360 365

Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
370 375 380

<210> 714
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 714

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

```
Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe
        275                 280                 285

Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
                325                 330                 335

Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser
        355                 360                 365

Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
```

370 375 380

Ser Ser
385

<210> 715
<211> 385
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 715

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
130 135 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145 150 155 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
165 170 175

```
Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
        275                 280                 285

Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
                325                 330                 335

Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp
        355                 360                 365

Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
    370                 375                 380

Ser
385
```

<210> 716
<211> 385
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 716

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220
```

```
Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe
        275                 280                 285

Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val
305                 310                 315                 320

Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn
                325                 330                 335

Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser
        355                 360                 365

Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
    370                 375                 380

Ser
385


<210>  717
<211>  386
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  717

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 Arg Ser Tyr
            20                  25                  30
```

```
Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270
```

```
Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
        275                 280                 285

Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly
305                 310                 315                 320

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn
                325                 330                 335

Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser
        355                 360                 365

Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
    370                 375                 380

Ser Ser
385


<210>  718
<211>  379
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  718

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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80
```

```
Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr Ser
        275                 280                 285

Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly Arg
    290                 295                 300

Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr Ala
305                 310                 315                 320
```

```
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr Asn
                325                 330                 335

Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp Tyr
        355                 360                 365

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375
```

<210> 719
<211> 381
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 719

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140
```

```
Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln
            260                 265                 270

Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr
        275                 280                 285

Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp
305                 310                 315                 320

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr
                325                 330                 335

Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr
            340                 345                 350

Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr
        355                 360                 365

Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380
```

<210> 720
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 720

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
130 135 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145 150 155 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
165 170 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
180 185 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
195 200 205

```
Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe
        275                 280                 285

Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
                325                 330                 335

Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser
        355                 360                 365

Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
    370                 375                 380

Ser Ser
385
```

<210> 721
<211> 385
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 721

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255
```

```
Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
        275                 280                 285

Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
                325                 330                 335

Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp
        355                 360                 365

Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
    370                 375                 380

Ser
385
```

<210> 722
<211> 385
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 722

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60
```

```
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr Phe
        275                 280                 285

Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300
```

```
Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val
305                 310                 315                 320

Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn
                325                 330                 335

Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser
        355                 360                 365

Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser
    370                 375                 380

Ser
385
```

<210> 723
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 723

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Val Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110
```

```
Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe
        275                 280                 285

Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg
    290                 295                 300

Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly
305                 310                 315                 320

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn
                325                 330                 335

Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val
            340                 345                 350
```

```
Tyr Tyr Cys Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser
        355                 360                 365

Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
    370                 375                 380

Ser Ser
385
```

<210> 724
<211> 380
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 724

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160
```

```
Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Lys Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Arg Thr
        275                 280                 285

Ser Ser Ile Tyr Asn Met Ala Trp Phe Arg Gln Gly Pro Gly Lys Gly
    290                 295                 300

Arg Glu Ser Val Gly Arg Ile Tyr Trp Ser Asp Asp Asn Thr Tyr Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Thr
                325                 330                 335

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Ala Gly Lys Thr Thr Lys Trp Ser Leu Glu Tyr Asp
        355                 360                 365

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380
```

<210> 725
<211> 382
<212> PRT

<213> Artificial

<220>
<223> Nanobody sequence

<400> 725

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145 150 155 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
165 170 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
180 185 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
195 200 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
210 215 220

```
Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met
            260                 265                 270

Gln Thr Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr
        275                 280                 285

Tyr Ser Tyr Tyr Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His
                325                 330                 335

Thr Met Tyr Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Phe Cys Ala Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser
        355                 360                 365

Tyr Arg His Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
    370                 375                 380


<210>  726
<211>  387
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  726

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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
```

```
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285
```

```
Phe Arg Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
                325                 330                 335

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr
        355                 360                 365

Ser Thr Glu Arg Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr
    370                 375                 380

Val Ser Ser
385
```

<210> 727
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 727

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
```

```
                85                  90                  95

Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285

Phe Arg Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
                325                 330                 335
```

```
Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Ser Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg
        355                 360                 365

Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
    370                 375                 380

Ser Ser
385
```

<210> 728
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 728

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
```

```
    130                 135                 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ala Gly Gly Thr
        275                 280                 285

Phe Arg Asn Tyr Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr
305                 310                 315                 320

Val Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys
                325                 330                 335

Asn Thr Val Tyr Leu Gln Met Ala Ser Leu Lys Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg
        355                 360                 365

Ser Glu Arg Gln Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
    370                 375                 380
```

Ser Ser
385

<210> 729
<211> 387
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 729

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Gly Val Tyr Arg Arg Thr His Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
130 135 140

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145 150 155 160

Ser Gly Phe Thr Phe Arg Ser Phe Gly Met Ser Trp Val Arg Gln Ala
165 170 175

Pro Gly Lys Glu Pro Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser

```
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285

Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
    290                 295                 300

Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr
305                 310                 315                 320

Gly Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln
                325                 330                 335

Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr
        355                 360                 365

Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr
    370                 375                 380

Val Ser Ser
385
```

<210> 730
<211> 122
<212> PRT
<213> Artificial

<220>

<223> Nanobody sequence

<400> 730

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
20 25 30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
85 90 95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 731
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 731

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Thr Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
20 25 30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60

```
Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Leu Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  732
<211>  122
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  732

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Pro Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Leu Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  733
<211>  122
```

<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 733

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
20 25 30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys His Thr Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
85 90 95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 734
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 734

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
20 25 30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

```
Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys Asn Thr Leu Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 735
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 735

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Met Gln Thr Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Tyr Ser Tyr Tyr
            20                  25                  30

Thr Ala Ser Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asp Ser Val Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Gly Lys His Thr Leu Tyr Leu
65                  70                  75                  80

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95

Ile Arg Ala Thr Asp Ser Ile Tyr Tyr Ala Ser Ser Tyr Arg His Trp
            100                 105                 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 736
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 736

Glu 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 Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
100 105 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 737
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 737

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 Arg Ser Tyr
20 25 30

```
Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 738
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 738

```
Glu 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 Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110
```

```
Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  739
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  739

Glu 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 Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr
            20                  25                  30


Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45


Ala Ala Ile Asn Tyr Ser Gly Gly Ser Thr Asn 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


Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110


Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  740
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  740

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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 741
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 741

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln 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
```

```
Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  742
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  742

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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  743
<211>  127
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  743
```

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 744
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 744

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80
```

```
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 745
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 745

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 746
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 746

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Ala Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 747
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 747

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Gly Thr Phe Arg Asn Tyr
20 25 30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
50 55 60

```
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 748
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 748

```
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 Ala Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Ala Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 749

<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 749

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 Ala Gly Gly Thr Phe Arg Asn Tyr
20 25 30

Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Thr Ala Ile Ser Thr Gly Gly Ser Trp Thr Gly Tyr Val Asp Ser Val
50 55 60

Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Thr 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 Ala Thr Thr Pro Ala Thr Thr Tyr Leu Pro Arg Ser Glu Arg Gln
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 750
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 750

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

```
Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 751
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 751

```
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 Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
```

115 120 125

<210> 752
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 752

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 Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 753
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 753

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 Arg Ser Tyr
20 25 30

```
Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
                85                  90                  95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 754
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 754

```
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 Arg Ser Tyr
            20                  25                  30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
```

```
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  755
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  755

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


Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45


Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110


Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  756
<211>  126
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  756

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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Glu 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 757
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 757

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  758
<211>  17
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  758

Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Glu Ser Val Lys
1               5                   10                  15

Gly



<210>  759
<211>  385
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  759

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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
                165                 170                 175

Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
            180                 185                 190

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
225                 230                 235                 240

Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
                245                 250                 255

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
            260                 265                 270

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
        275                 280                 285

Ser Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg
    290                 295                 300

Glu Phe Val Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
                325                 330                 335
```

```
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp
        355                 360                 365

Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
    370                 375                 380

Ser
385
```

<210> 760
<211> 387
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 760

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
    130                 135                 140
```

```
Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
145                 150                 155                 160

Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala
                165                 170                 175

Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
            180                 185                 190

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
        195                 200                 205

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro
    210                 215                 220

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg
225                 230                 235                 240

Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
                245                 250                 255

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
            260                 265                 270

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr
        275                 280                 285

Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly
    290                 295                 300

Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr
305                 310                 315                 320

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln
                325                 330                 335

Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala
            340                 345                 350

Val Tyr Tyr Cys Ala Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr
        355                 360                 365

Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
    370                 375                 380
```

Val Ser Ser
385

<210> 761
<211> 265
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 761

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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
130 135 140

Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145 150 155 160

Gly Phe Thr Phe Ser Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro
165 170 175

Gly Lys Gly Arg Glu Phe Val Ser Ser Ile Thr Gly Ser Gly Gly Ser
180 185 190

```
Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr
225                 230                 235                 240

Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
                245                 250                 255

Val Thr Val Ser Ser Gly Gly Gly Cys
            260                 265
```

<210> 762
<211> 288
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 762

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
```

```
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln
145                 150                 155                 160

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg
                165                 170                 175

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly
            180                 185                 190

Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val Gly Phe Ile
        195                 200                 205

Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met
225                 230                 235                 240

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Val Tyr
                245                 250                 255

Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp
            260                 265                 270

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Cys
        275                 280                 285


<210>  763
<211>  98
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  763

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
```

```
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Arg
```

<210> 764
<211> 11
<212> PRT
<213> Artificial

<220>
<223> FR4 sequence

<400> 764

```
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1               5                   10
```

<210> 765
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 765

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 766
<211> 281
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 766

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 Arg Ser Tyr
20 25 30

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
100 105 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

```
Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu
145                 150                 155                 160

Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu
                165                 170                 175

Ser Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Pro Met Gly Trp
            180                 185                 190

Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ser Ile Thr
        195                 200                 205

Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
    210                 215                 220

Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn
225                 230                 235                 240

Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Ser Cys Ala Ala Tyr Ile
                245                 250                 255

Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp
            260                 265                 270

Gly Gln Gly Thr Gln Val Thr Val Ser
        275                 280
```

<210> 767
<211> 284
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 767

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val
    50                  55                  60
```

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr
65                  70                  75                  80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Gly Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln
145                 150                 155                 160

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg
                165                 170                 175

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly
            180                 185                 190

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Gly Phe Ile
        195                 200                 205

Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Gly Glu Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met
225                 230                 235                 240

Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Gly Val Tyr
                245                 250                 255

Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp
            260                 265                 270

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        275                 280
```

<210> 768
<211> 279
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 768

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
145                 150                 155                 160

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
                165                 170                 175

Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly Trp Phe Arg Gln Ala
            180                 185                 190

Pro Gly Lys Gly Arg Glu Phe Val Gly Phe Ile Thr Gly Ser Gly Gly
        195                 200                 205

Thr Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
    210                 215                 220
```

```
Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met Asn Ser Leu Arg Pro
225                 230                 235                 240

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Val Tyr Arg Arg Thr Tyr Ile
                245                 250                 255

Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp Tyr Trp Gly Gln Gly
            260                 265                 270

Thr Leu Val Thr Val Ser Ser
        275
```

<210> 769
<211> 284
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 769

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140
```

```
Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln
145                 150                 155                 160

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg
                165                 170                 175

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly
            180                 185                 190

Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val Gly Phe Ile
        195                 200                 205

Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met
225                 230                 235                 240

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Val Tyr
                245                 250                 255

Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp
            260                 265                 270

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        275                 280
```

<210> 770
<211> 284
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 770

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
            100                 105                 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln
145                 150                 155                 160

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg
                165                 170                 175

Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met Gly
            180                 185                 190

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile
        195                 200                 205

Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met
225                 230                 235                 240

Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Gly
                245                 250                 255

Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr Thr
            260                 265                 270

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        275                 280
```

<210> 771
<211> 269

<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 771

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg 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 Asn Tyr Ser Gly Gly Ser Thr Asn 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 Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ala Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg
100 105 110

Ala Tyr Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val
130 135 140

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu
145 150 155 160

Arg Leu Thr Cys Ala Ala Ser Gly Arg Thr Phe Arg Ser Tyr Ala Met
165 170 175

Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala
180 185 190

Ile Asn Tyr Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly
195 200 205

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln

```
    210                 215                 220

Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala
225                 230                 235                 240

Gly Ser Gly Tyr Ala Ser Leu Ser Tyr Tyr Ser Thr Glu Arg Ala Tyr
                245                 250                 255

Thr Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
            260                 265


<210>  772
<211>  846
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  772

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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
    130                 135                 140
```

```
Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
145                 150                 155                 160

Gly Phe Thr Phe Ser Ser Tyr Pro Met Gly Trp Phe Arg Gln Ala Pro
                165                 170                 175

Gly Lys Gly Arg Glu Phe Val Ser Ser Ile Thr Gly Ser Gly Gly Ser
            180                 185                 190

Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
        195                 200                 205

Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu
    210                 215                 220

Asp Thr Ala Val Tyr Tyr Cys Ala Ala Tyr Ile Arg Pro Asp Thr Tyr
225                 230                 235                 240

Leu Ser Arg Asp Tyr Arg Lys Tyr Asp Tyr Trp Gly Gln Gly Thr Leu
                245                 250                 255

Val Thr Val Ser Ser Asp Ala His Lys Ser Glu Val Ala His Arg Phe
            260                 265                 270

Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu Ile Ala Phe
        275                 280                 285

Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val Lys Leu Val
    290                 295                 300

Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp Glu Ser Ala
305                 310                 315                 320

Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp Lys Leu Cys
                325                 330                 335

Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala Asp Cys Cys
            340                 345                 350

Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln His Lys Asp
        355                 360                 365

Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val Asp Val Met
    370                 375                 380

Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys Lys Tyr Leu
```

385 390 395 400

Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro Glu Leu Leu
405 410 415

Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys Cys Gln Ala
420 425 430

Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu Leu Arg Asp
435 440 445

Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys Ala Ser Leu
450 455 460

Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val Ala Arg Leu
465 470 475 480

Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser Lys Leu Val
485 490 495

Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly Asp Leu Leu
500 505 510

Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile Cys Glu Asn
515 520 525

Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu Lys Pro Leu
530 535 540

Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp Glu Met Pro
545 550 555 560

Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser Lys Asp Val
565 570 575

Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly Met Phe Leu
580 585 590

Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val Leu Leu Leu
595 600 605

Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys Cys Ala Ala
610 615 620

Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu Phe Lys Pro
625 630 635 640

```
Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys Glu Leu Phe
                645                 650                 655

Glu Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu Val Arg Tyr
            660                 665                 670

Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val Glu Val Ser
        675                 680                 685

Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His Pro Glu Ala
    690                 695                 700

Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val Leu Asn Gln
705                 710                 715                 720

Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg Val Thr Lys
                725                 730                 735

Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe Ser Ala Leu
            740                 745                 750

Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala Glu Thr Phe
        755                 760                 765

Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu Arg Gln Ile
    770                 775                 780

Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys Pro Lys Ala
785                 790                 795                 800

Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala Ala Phe Val
                805                 810                 815

Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe Ala Glu Glu
            820                 825                 830

Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly Leu
        835                 840                 845
```

<210> 773
<211> 869
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 773

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln
145                 150                 155                 160

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg
                165                 170                 175

Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Arg Ser Ala Met Gly
            180                 185                 190

Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val Gly Phe Ile
        195                 200                 205

Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val Tyr Leu Gln Met
225                 230                 235                 240
```

```
Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Val Tyr
                245                 250                 255

Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser Glu Tyr Asp
            260                 265                 270

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Asp Ala His Lys
        275                 280                 285

Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys
    290                 295                 300

Ala Leu Val Leu Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe
305                 310                 315                 320

Glu Asp His Val Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr
                325                 330                 335

Cys Val Ala Asp Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr
            340                 345                 350

Leu Phe Gly Asp Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr
        355                 360                 365

Gly Glu Met Ala Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu
    370                 375                 380

Cys Phe Leu Gln His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val
385                 390                 395                 400

Arg Pro Glu Val Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu
                405                 410                 415

Thr Phe Leu Lys Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr
            420                 425                 430

Phe Tyr Ala Pro Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala
        435                 440                 445

Phe Thr Glu Cys Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro
    450                 455                 460

Lys Leu Asp Glu Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln
465                 470                 475                 480
```

```
Arg Leu Lys Cys Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys
                485                 490                 495

Ala Trp Ala Val Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe
            500                 505                 510

Ala Glu Val Ser Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu
        515                 520                 525

Cys Cys His Gly Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu
    530                 535                 540

Ala Lys Tyr Ile Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys
545                 550                 555                 560

Glu Cys Cys Glu Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu
                565                 570                 575

Val Glu Asn Asp Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp
            580                 585                 590

Phe Val Glu Ser Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp
        595                 600                 605

Val Phe Leu Gly Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp
    610                 615                 620

Tyr Ser Val Val Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr
625                 630                 635                 640

Leu Glu Lys Cys Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys
                645                 650                 655

Val Phe Asp Glu Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile
            660                 665                 670

Lys Gln Asn Cys Glu Leu Phe Glu Gln Leu Gly Glu Tyr Lys Phe Gln
        675                 680                 685

Asn Ala Leu Leu Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr
    690                 695                 700

Pro Thr Leu Val Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys
705                 710                 715                 720
```

```
Cys Cys Lys His Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr
                725                 730                 735

Leu Ser Val Val Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro
            740                 745                 750

Val Ser Asp Arg Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg
        755                 760                 765

Arg Pro Cys Phe Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys
    770                 775                 780

Glu Phe Asn Ala Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu
785                 790                 795                 800

Ser Glu Lys Glu Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu
                805                 810                 815

Val Lys His Lys Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met
            820                 825                 830

Asp Asp Phe Ala Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys
        835                 840                 845

Glu Thr Cys Phe Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln
    850                 855                 860

Ala Ala Leu Gly Leu
865
```

<210> 774
<211> 376
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 774

```
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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45
```

```
Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
    130                 135                 140

Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
145                 150                 155                 160

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
                165                 170                 175

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
            180                 185                 190

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
        195                 200                 205

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
    210                 215                 220

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
225                 230                 235                 240

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
                245                 250                 255

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
            260                 265                 270

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
        275                 280                 285
```

```
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
    290                 295                 300

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
305                 310                 315                 320

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro Phe Phe Leu Tyr
                325                 330                 335

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            340                 345                 350

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
        355                 360                 365

Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375


<210>  775
<211>  376
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  775

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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110
```

```
Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
    130                 135                 140

Gly Gly Gly Gly Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
145                 150                 155                 160

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
                165                 170                 175

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
            180                 185                 190

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
        195                 200                 205

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
    210                 215                 220

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
225                 230                 235                 240

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
                245                 250                 255

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
            260                 265                 270

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
        275                 280                 285

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
    290                 295                 300

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
305                 310                 315                 320

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro Phe Phe Leu Tyr
                325                 330                 335

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            340                 345                 350
```

```
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
        355                 360                 365

Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375


<210>  776
<211>  376
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  776

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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Cys Pro Pro Cys Pro Ala
145                 150                 155                 160

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
                165                 170                 175
```

```
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
            180                 185                 190

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
        195                 200                 205

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
    210                 215                 220

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
225                 230                 235                 240

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
                245                 250                 255

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
            260                 265                 270

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
        275                 280                 285

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
    290                 295                 300

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
305                 310                 315                 320

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro Phe Phe Leu Tyr
                325                 330                 335

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            340                 345                 350

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
        355                 360                 365

Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375
```

<210> 777
<211> 348
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 777

```
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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Cys Pro
        115                 120                 125

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
    130                 135                 140

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
145                 150                 155                 160

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
                165                 170                 175

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
            180                 185                 190

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
        195                 200                 205

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
    210                 215                 220

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
225                 230                 235                 240
```

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
                245                 250                 255

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
            260                 265                 270

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
        275                 280                 285

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro
    290                 295                 300

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
305                 310                 315                 320

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
                325                 330                 335

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            340                 345
```

<210> 778
<211> 376
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 778

```
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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
    130                 135                 140

Gly Gly Gly Ser Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro
145                 150                 155                 160

Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
                165                 170                 175

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
            180                 185                 190

Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
        195                 200                 205

Asp Gly Met Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
    210                 215                 220

Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln
225                 230                 235                 240

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
                245                 250                 255

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro
            260                 265                 270

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
        275                 280                 285

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
    290                 295                 300

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
305                 310                 315                 320

Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
                325                 330                 335
```

```
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
            340                 345                 350

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
        355                 360                 365

Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375
```

<210> 779
<211> 381
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 779

```
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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Ser Cys Cys Val Glu
145                 150                 155                 160
```

```
Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu
                165                 170                 175

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
            180                 185                 190

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
        195                 200                 205

Phe Asn Trp Tyr Val Asp Gly Met Glu Val His Asn Ala Lys Thr Lys
    210                 215                 220

Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu
225                 230                 235                 240

Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
                245                 250                 255

Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
            260                 265                 270

Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
        275                 280                 285

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
    290                 295                 300

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
305                 310                 315                 320

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly
                325                 330                 335

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
            340                 345                 350

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
        355                 360                 365

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375                 380
```

<210> 780
<211> 385
<212> PRT

<213> Artificial

<220>
<223> Nanobody sequence

<400> 780

```
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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
    130                 135                 140

Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Ser
145                 150                 155                 160

Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro
                165                 170                 175

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
            180                 185                 190

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
        195                 200                 205

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Met Glu Val His Asn
    210                 215                 220
```

```
Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val
225                 230                 235                 240

Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu
                245                 250                 255

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys
            260                 265                 270

Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
        275                 280                 285

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
    290                 295                 300

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
305                 310                 315                 320

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu
                325                 330                 335

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
            340                 345                 350

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
        355                 360                 365

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
    370                 375                 380

Lys
385
```

<210> 781
<211> 351
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 781

```
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

Pro Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Ser Ser Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr 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 Ala Tyr Ile Arg Pro Asp Thr Tyr Leu Ser Arg Asp Tyr Arg Lys
            100                 105                 110

Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Cys Cys
        115                 120                 125

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
    130                 135                 140

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
145                 150                 155                 160

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
                165                 170                 175

Val Gln Phe Asn Trp Tyr Val Asp Gly Met Glu Val His Asn Ala Lys
            180                 185                 190

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
        195                 200                 205

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
    210                 215                 220

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
225                 230                 235                 240

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
                245                 250                 255

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
            260                 265                 270
```

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
275 280 285

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
290 295 300

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
305 310 315 320

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
325 330 335

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
340 345 350

<210> 782
<211> 377
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 782

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly

```
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Ser Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro
145                 150                 155                 160

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
                165                 170                 175

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
            180                 185                 190

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
        195                 200                 205

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
    210                 215                 220

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
225                 230                 235                 240

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
                245                 250                 255

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
            260                 265                 270

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
        275                 280                 285

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
    290                 295                 300

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
305                 310                 315                 320

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro Phe Phe Leu
                325                 330                 335

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
            340                 345                 350

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
        355                 360                 365
```

```
Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375


<210>  783
<211>  377
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  783

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 Arg Ser
            20                  25                  30


Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45


Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110


Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125


Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140


Ser Gly Gly Gly Gly Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro
145                 150                 155                 160


Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
                165                 170                 175


Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
```

```
            180                 185                 190

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
        195                 200                 205

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
    210                 215                 220

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
225                 230                 235                 240

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
                245                 250                 255

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
            260                 265                 270

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
        275                 280                 285

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
    290                 295                 300

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
305                 310                 315                 320

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro Phe Phe Leu
                325                 330                 335

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
            340                 345                 350

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
        355                 360                 365

Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375


<210>  784
<211>  377
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  784
```

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Cys Pro Pro Cys Pro
145                 150                 155                 160

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
                165                 170                 175

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
            180                 185                 190

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
        195                 200                 205

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
    210                 215                 220

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
225                 230                 235                 240

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
```

```
                245                 250                 255

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
            260                 265                 270

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
        275                 280                 285

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
    290                 295                 300

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
305                 310                 315                 320

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Pro Phe Phe Leu
                325                 330                 335

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
            340                 345                 350

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
        355                 360                 365

Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375


<210>  785
<211>  349
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  785

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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60
```

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Cys
        115                 120                 125

Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu
    130                 135                 140

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
145                 150                 155                 160

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
                165                 170                 175

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
            180                 185                 190

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
        195                 200                 205

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
    210                 215                 220

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
225                 230                 235                 240

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
                245                 250                 255

Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
            260                 265                 270

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
        275                 280                 285

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
    290                 295                 300

Pro Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
```

305 310 315 320

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
325 330 335

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
340 345

<210> 786
<211> 377
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 786

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
100 105 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
115 120 125

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Ser Gly Gly Gly Ser Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys
145 150 155 160

```
Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
                165                 170                 175

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
            180                 185                 190

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
        195                 200                 205

Val Asp Gly Met Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
    210                 215                 220

Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His
225                 230                 235                 240

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
                245                 250                 255

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
            260                 265                 270

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
        275                 280                 285

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
    290                 295                 300

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
305                 310                 315                 320

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
                325                 330                 335

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
            340                 345                 350

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
        355                 360                 365

Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375
```

<210> 787
<211> 382
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 787

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Ser Cys Cys Val
145                 150                 155                 160

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
                165                 170                 175

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
            180                 185                 190

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
        195                 200                 205

Gln Phe Asn Trp Tyr Val Asp Gly Met Glu Val His Asn Ala Lys Thr
    210                 215                 220
```

```
Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
225                 230                 235                 240

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
                245                 250                 255

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
            260                 265                 270

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
        275                 280                 285

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
    290                 295                 300

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
305                 310                 315                 320

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
                325                 330                 335

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
            340                 345                 350

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
        355                 360                 365

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375                 380
```

<210> 788
<211> 386
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 788

```
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 Arg Ser
            20                  25                  30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
        35                  40                  45
```

```
Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
        115                 120                 125

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    130                 135                 140

Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly
145                 150                 155                 160

Ser Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
                165                 170                 175

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
            180                 185                 190

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
        195                 200                 205

Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Met Glu Val His
    210                 215                 220

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg
225                 230                 235                 240

Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys
                245                 250                 255

Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu
            260                 265                 270

Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
        275                 280                 285
```

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
290 295 300

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
305 310 315 320

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met
325 330 335

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
340 345 350

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
355 360 365

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
370 375 380

Gly Lys
385

<210> 789
<211> 352
<212> PRT
<213> Artificial

<220>
<223> Nanobody sequence

<400> 789

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 Arg Ser
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Phe Val
35 40 45

Gly Phe Ile Thr Gly Ser Gly Gly Thr Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Gln Asn Pro Val 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 Val Tyr Arg Arg Thr Tyr Ile Ser Ser Thr Tyr Ser Glu Ser Ser
            100                 105                 110

Glu Tyr Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Cys
        115                 120                 125

Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser
    130                 135                 140

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
145                 150                 155                 160

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
                165                 170                 175

Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Met Glu Val His Asn Ala
            180                 185                 190

Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val
        195                 200                 205

Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
    210                 215                 220

Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr
225                 230                 235                 240

Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
                245                 250                 255

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
            260                 265                 270

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
        275                 280                 285

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp
    290                 295                 300

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
305                 310                 315                 320

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
                325                 330                 335
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```
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            340                 345                 350


<210>  790
<211>  115
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  790

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 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>  791
<211>  115
<212>  PRT
<213>  Artificial

<220>
<223>  Nanobody sequence

<400>  791

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> 792
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Linker sequence

<400> 792

Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5

<210> 793
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Linker sequence

<400> 793

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 794
<211> 20
<212> PRT
<213> Artificial

<220>

<223> Linker sequence

<400> 794

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 795
<211> 25
<212> PRT
<213> Artificial

<220>
<223> Linker sequence

<400> 795

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 796
<211> 30
<212> PRT
<213> Artificial

<220>
<223> Linker sequence

<400> 796

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> 797
<211> 30
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 797
cctccctttg acggattccg cgtaatacgt 30

<210> 798

<211> 30
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 798
acgtattacg cggattccgt caaagggagg 30

<210> 799
<211> 22
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 799
aaggctagag tacttaatac ga 22

<210> 800
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 800
cttatcatgt ctgctcgaag c 21

<210> 801
<211> 42
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 801
gggaaccaga tgggatggag gcggcattaa tagtgagatg ag 42

<210> 802
<211> 42
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 802
ctcatctcac tattaatgcc gcctccatcc catctggttc cc 42

<210> 803
<211> 46

<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 803
ccattagttg aagatactct gtagccacgc ttcctgaagt ttcatg 46

<210> 804
<211> 46
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 804
catgaaactt caggaagcgt ggctacagag tatcttcaac taatgg 46

<210> 805
<211> 34
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 805
ccattagttg aagatagtct gtaggtaggt ctcc 34

<210> 806
<211> 34
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 806
ggagacctac ctacagacta tcttcaacta atgg 34

<210> 807
<211> 69
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 807
gaagtaggat ggacgatgac aaacccgcga agacttttct ggtggcggga gcgaggtgca 60

gctggtgga 69

<210> 808

<211> 51
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 808
gttctatcgg gaagacttag aacctccgcc gcctgaggag acggtgacca g 51

<210> 809
<211> 44
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 809
gggtatctct cgagaaaaga gaggtgcagc tggtggagtc tggg 44

<210> 810
<211> 70
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 810
tctcttctcc taggtctttg aatctgtggg cgacttcaga tttatgagca tctgaggaga 60

cggtgaccag 70

<210> 811
<211> 41
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 811
gggtatctct cgagaaaaga gaggttcagc tagtggaatc a 41

<210> 812
<211> 70
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 812
cacctccgga tcctccacct ccgctacctc cacctccact gccacctcca cctgaggaga 60

cggtgaccag 70

<210> 813
<211> 75
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 813
ggtggaggat ccggaggtgg aggtagcgga ggtggaggct caggaggtgg aggcagtgag 60

gttcagctag tggaa 75

<210> 814
<211> 70
<212> DNA
<213> Artificial

<220>
<223> Primer sequence

<400> 814
tctcttctcc taggtctttg aatctgtggg cgacttcaga tttatgagca tctgaggaga 60

cggtgaccag 70