SEQUENCE LISTING

<110> BioNTech AG
Genmab A/S

<120> Agonistic TNF receptor binding agents

<130> 674-140 PCT

<150> PCT/EP2015/050255
<151> January 8, 2015

<160> 2328

<170> PatentIn version 3.5

<210> 1
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1

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

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

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

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

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

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

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

Thr Val Ser Ser
115

<210> 2
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2

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

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

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

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

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

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

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

<210> 3
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 3

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

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

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

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

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

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

Cys Ala Arg Gly Asp Ser Gly His Pro Tyr Tyr Tyr Ser Phe Asn Leu
            100                 105                 110

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

<210> 4
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 4

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr His Gly Thr Arg Ser
                85                  90                  95

Asp Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 5
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 5

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


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


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


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


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


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


Tyr Gly Ile Ser Ser Gly Asn Phe Leu His Phe Asn Leu Trp Gly Gln
            100                 105                 110


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

<210> 6
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 6

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                  10                  15
```

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Tyr Phe Asn
            20                  25                  30

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Asp Ser Ser His
                85                  90                  95

Ile Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Thr
            100                 105                 110
```

<210> 7
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 7

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

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

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

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

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

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

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

Ser

<210> 8
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 8

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

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

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

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

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

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

Gly Asp Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 9
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 9

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

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

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

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

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

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

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

Ser
```

<210> 10
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 10

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

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

Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45

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

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

```
Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Gly Gly
                85                  90                  95

Ser Trp Arg Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 11
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 11

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

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

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

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

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

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

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

Ser
```

<210> 12
<211> 111
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 12

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

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

Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

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

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

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

Ser Trp Arg Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 13
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 13

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

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

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

Cys Ile Ala Pro Gly Gly Gly Asn Thr Tyr Tyr Ala Thr Trp Ala Lys
50 55 60

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

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

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

Val Thr Val Ser Ser
115

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

<220>
<223> VL

<400> 14

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

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

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Met Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Phe Tyr Ala Ala Ser Ser
85 90 95

Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 15
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 15

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

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

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

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

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

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

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

Val Ser Ser
115

<210> 16
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 16

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

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

Tyr Phe Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

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

Gly Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu
65                  70                  75                  80

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

Thr Thr Ala Phe Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100                 105                 110
```

<210> 17
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 17

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

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

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

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

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

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

Arg Asp Leu Tyr His Glu Asn Ser Asp Gly Asp Trp Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 18
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 18

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

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

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

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

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

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

Ser Gly Ser Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 19
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 19

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

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

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

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

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

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

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

Val Thr Val Ser Ser
        115
```

<210> 20
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 20

```
Gln Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ala Thr Thr
                85                  90                  95
```

Asn Val Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 21
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 21

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 22
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 22

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

```
Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asp Leu
            20                  25                  30

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ile Thr Asn
                85                  90                  95

Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 23
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 23

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

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

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

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

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

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

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

Ser

<210> 24
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 24

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

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

Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

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

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

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

Ser Trp Arg Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 25
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 25

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

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

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

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

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

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

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

Val Thr Val Ser Ser
        115
```

<210> 26
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 26

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Ile Asp Ser Tyr Ser Ser
85 90 95

Asp Asp Gly Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 27
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 27

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 28
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 28

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

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

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

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

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

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

Thr Ile Ser Tyr Gly Leu Pro Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 29
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 29

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

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

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

```
Ile Leu Tyr Arg Asn Asp Ala Ala Ser Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

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

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

Val Asn Asp Gly Tyr Tyr Asn Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 30
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 30

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

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

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

Phe Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Ser Tyr Ser Ile
                85                  90                  95

Ile Asp Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 31
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 31

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

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

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

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

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

Met Thr Ser Leu Thr Thr Glu His Thr Ala Thr Tyr Phe Cys Ala Thr
85 90 95

Tyr Gly Gly Gly Gly Gly His Asn Leu Trp Gly Pro Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 32
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 32

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

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

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

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

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

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

Gly Asp Ile Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100                 105                 110
```

<210> 33
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 33

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

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

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

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

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

Thr Leu Arg Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Ile Tyr Phe
                85                  90                  95
```

Cys Ala Arg Ser Val Pro Gly Ser Leu Phe Tyr Phe Gln Leu Trp Gly
100 105 110

Pro Gly Thr Val Val Thr Val Ser Ser
115 120

<210> 34
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 34

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

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

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

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

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

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

Ser Gly Ser Tyr Thr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 35
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 35

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

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

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

Gly Cys Ile Ala Thr Gly Gly Gly Asn Thr Tyr Tyr Ala Thr Trp Ala
    50                  55                  60

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

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

Arg Thr Tyr Pro Ser Met Trp Tyr Phe Asn Leu Trp Gly Pro Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 36
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 36

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

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

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

Tyr Gly Val Ser Thr Leu Thr Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

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

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Phe Tyr Ala Gly Ser Ser
                85                  90                  95

Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 37
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 37

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

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

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

Ile Ala Cys Ile Phe Ala Gly Ser Gly Gly Gly Ala Gly Tyr Ala Thr
    50                  55                  60

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Leu
        115                 120
```

<210> 38
<211> 111
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 38

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Glu
1               5                  10                  15

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

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

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

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

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

Asp Val Gly Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 39
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 39

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

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

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

Ile Gly Cys Ile Ile Thr Gly Arg Gly Asn Thr Tyr Tyr Ala Asn Trp
    50                  55                  60
```

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

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

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

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 40
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 40

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

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

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

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

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

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

Tyr Val Pro Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 41
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 41

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

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

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

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

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

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

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

Ser

<210> 42
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 42

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

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

Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

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

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

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

Ser Trp Arg Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 43
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 43

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

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

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

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

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

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

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

Ser Ser
```

<210> 44
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 44

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Tyr Thr Tyr Ser Thr Ser Pro
85 90 95

Gly Tyr Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 45
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 45

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

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

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

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

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

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

Cys Ala Arg Glu Ile Leu Tyr Pro Ala Asp Thr Asp Ser Phe Asp Leu
            100                 105                 110

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

<210> 46
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 46

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

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

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

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

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

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

Gly Gly Tyr Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 47
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 47

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

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 48
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 48

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Ser Asn Thr Asn Thr
                85                  90                  95

Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 49
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 49

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 50
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 50

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

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Phe Asp His
20 25 30

Asn Gln Leu Ser Trp Phe Gln His Lys Pro Gly Gln Ser Pro Lys Leu
35 40 45

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

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

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

Ser Ser Asp Thr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 51
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 51

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

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

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

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

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

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

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

Ser
```

<210> 52
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 52

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

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Val Gly Asn
            20                  25                  30

Asn Ala Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

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

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


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


Ser Gly Trp Tyr Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  53
<211>  118
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  53

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


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


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


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


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


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


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


Leu Val Thr Val Ser Ser
        115


<210>  54
<211>  108
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VL

<400> 54

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Ser Ser Thr Thr Thr
85 90 95

Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 55
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 55

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

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

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

Met Ile Ser Thr Gly Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Gln Gly
50 55 60

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 56
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 56

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

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

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

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

Ser Gly Ser Gly Ala His Phe Thr Leu Thr Val Ser Asp Leu Glu Ser
65 70 75 80

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

Asn Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 57
<211> 116

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 57

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

Leu Thr Leu Thr Cys Thr Val Ser Gly Met Asp Leu Ser Ser Tyr Ser
20 25 30

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

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

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

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

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

Thr Val Ser Ser
115

<210> 58
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 58

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

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

```
Tyr Cys Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45

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

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

Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Asp Phe Ile Ala Ser
                85                  90                  95

Ser Gly Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 59
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 59

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

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

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

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

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

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

Ala Ala Ala Tyr Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
```

Ser

<210> 60
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 60

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ser Thr Asn
85 90 95

Val Glu Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 61
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 61

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

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

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

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

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 62
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 62

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

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

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

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

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

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Gly
                85                  90                  95
```

```
Ala Val Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  63
<211>  123
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  63

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


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


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


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


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


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


Cys Ala Arg Glu Ile Leu Tyr Pro Thr Asn Thr Asp Ser Phe Asp Leu
            100                 105                 110


Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  64
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  64
```

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

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

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

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

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

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

Gly Gly Tyr Phe Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 65
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 65

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

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

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

Ala Cys Ile Tyr Ala Gly Gly Ser Arg Ser Thr Tyr Tyr Ala Thr Trp
    50                  55                  60

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

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

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

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 66
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 66

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Asn Gly Gly Gly Thr Ser
                85                  90                  95

Gly Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 67
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 67

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

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 68
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 68

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

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

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gly Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ala Asp Ser Asn
85 90 95

Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 69
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 69

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

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

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

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

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 70
<211> 110

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 70

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

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

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

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

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

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

Ala Val Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 71
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 71

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

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

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

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

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

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

Tyr Gly Gly Tyr Ile Leu Val Thr Gly Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  72
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  72

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

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

Cys Ser Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

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

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Gly Pro
                85                  90                  95

Phe Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 73
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 73

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

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

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

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

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

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

Thr Ile Asp Trp Phe Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val
100 105 110

Ser Ser

<210> 74
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 74

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

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

```
Tyr Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45

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

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

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

Asn Asp Thr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 75
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 75

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

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

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

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

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

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

Tyr Gly Gly Tyr Ile Leu Val Thr Gly Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110
```

Val Thr Val Ser Ser
115

<210> 76
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 76

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Gly Pro
85 90 95

Phe Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 77
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 77

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 78
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 78

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

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

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

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

Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Cys Ala Gly Ser Gly
85 90 95

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

<210> 79
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 79

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

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

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

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

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

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

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

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 80
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 80

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Thr Phe Asp Cys Thr Asp
85 90 95

Val Glu Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 81
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 81

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

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

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

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

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

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

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

Ser Ser
```

<210> 82
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 82

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

Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Lys Ser Val Ile Asn Asn
            20                  25                  30

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

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

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

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Ala Tyr Ser Pro
                85                  90                  95

Asp Ser Glu Asn Ala Phe Gly Gly Gly Thr Glu Val Val Leu Lys
            100                 105                 110
```

<210> 83
<211> 112
<212> PRT
<213> Artificial Sequence

<220>

<223> VH

<400> 83

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

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

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

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

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

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

Thr Thr Phe Thr Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 84
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 84

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

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

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

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

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


Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Asp Tyr Asp Ser Asn
                85                  90                  95


Tyr Val Val Asp Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  85
<211>  122
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  85

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


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


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


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


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


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


Ala Arg Ile Ala Ala Ala Ala Ser Ala Ser Asp Asp Phe Arg Leu Trp
            100                 105                 110


Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  86
<211>  111
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VL

<400> 86

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

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

Trp Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

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

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

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

Ser Asp Arg Phe Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 87
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 87

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

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

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

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

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


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


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


Pro Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  88
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  88

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


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


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


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


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


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ser Ser Asn
                85                  90                  95


Val Asp Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  89
<211>  119
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 89

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 90
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 90

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Asn Tyr Gly Ala Ala Ser
                85                  90                  95

Ser Ser Tyr Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 91
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 91

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

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

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

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

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 92
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 92

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

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

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

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

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

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

Ala Asp Asn Asn Ser Phe Gly Gly Gly Thr Glu Leu Val Val Lys
            100   105   110

<210> 93
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 93

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

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

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

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

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

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

Val Glu Phe Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 94
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 94

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

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

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

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

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

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Phe Tyr Asp
                85                  90                  95

Ser Gly Trp Leu Ser Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 95
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 95

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


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


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


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


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


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


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


Pro Gly Thr Leu Val Ile Val Ser Ser
        115                 120
```

<210> 96
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 96

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

```
Ser Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

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

Leu Ile Tyr Gln Ala Ser Lys Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

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

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

Ser Gly Leu Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 97
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 97

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

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

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

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

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

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

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


Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  98
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  98

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


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


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


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


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


Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Gly Tyr Tyr Ser Ser Asn
                85                  90                  95


Thr Asp Asn Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  99
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  99

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

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

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

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

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

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

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

Val Thr Val Ser Ser
        115


<210>  100
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  100

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

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

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

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

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

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


Ile His Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  101
<211>  118
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  101

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


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


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


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


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


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


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


Leu Val Thr Val Ser Ser
        115


<210>  102
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 102

```
Asp Val Val Met Thr Gln Thr Pro Ser Ser Val Glu Ala Ala Val Gly
1               5                  10                  15

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Asn Asn Gly Ala Tyr Gly
                85                  90                  95

Ser Ala Tyr Val Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 103
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 103

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

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

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

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

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

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

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

Pro Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 104
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 104

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

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

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

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

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

Ala Asp Gly Ala Thr Tyr Tyr Cys Ala Gly Tyr Gly Gly Leu Gly Ile
85 90 95

Thr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 105
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 105

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 106
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 106

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Thr Thr Tyr Thr
                85   90   95

Thr Val Asp Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105   110

<210> 107
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 107

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

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

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

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 108
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 108

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

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

Cys Ser Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Cys Ala Gly Ser Gly
85 90 95

Val Cys Leu Gly Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 109
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 109

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

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

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

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

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

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

Val Asn Asp Gly Tyr Tyr Asn Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

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

<220>
<223> VL

<400> 110

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

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

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

Phe Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Ser Tyr Ser Ile
                85                  90                  95
```

Thr Asp Asn Cys Phe Gly Gly Gly Thr Glu Val Val Val Ser
100 105 110

<210> 111
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 111

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

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

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

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

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

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

Ala Arg Ala Ala Gly Gly Tyr Ala Asp Tyr Ala Tyr Val Met Gly Asp
100 105 110

Tyr Phe Asn Phe Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 112
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 112

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ser Ser Asn
                85                  90                  95

Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 113
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 113

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

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

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

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

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

Thr Leu Gln Met Thr Ser Leu Thr Asp Ala Asp Thr Ala Ala Tyr Phe
                85                  90                  95
```

```
Cys Val Arg Asp Asp Val Gly Ser Ser Tyr Glu Tyr Tyr Phe Ser Leu
            100                 105                 110


Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  114
<211>  108
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  114

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


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


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


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


Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Ala Tyr Tyr Cys Gln Thr Tyr Phe Gly Ser Asp Ser
                85                  90                  95


Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  115
<211>  123
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  115
```

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

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

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

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

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

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

Ala Arg Gly Ala Val Tyr Gly Gly Gly Ser Tyr Asp Asn Phe His Leu
            100                 105                 110

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

<210> 116
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 116

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

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

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

Tyr Ala Ala Ser Thr Leu Ala Ser Gly Val Gln Ser Arg Phe Lys Gly
    50                  55                  60
```

```
Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80


Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Asn Ile Ser Asn
                85                  90                  95


Leu Asp Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  117
<211>  119
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  117

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


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


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


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


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


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


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


Thr Leu Val Thr Val Ser Ser
        115


<210>  118
<211>  112
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VL

<400> 118

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

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

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

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

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

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

Thr Ser Tyr Glu Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Ser
100 105 110

<210> 119
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 119

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

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

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

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

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

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

Ala Gly Gly Asn Trp Ala Glu Leu Asp Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 120
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 120

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

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

Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Ser Thr Ile Ser Asn
85 90 95

Val Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 121
<211> 123

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 121

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

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

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

Ala Cys Ile His Ala Gly Ser Ser Gly Thr Thr His Tyr Ala Thr Trp
50 55 60

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

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

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

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 122
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 122

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ala Asp Asn
                85                  90                  95

Val Ala Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  123
<211>  118
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  123

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

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

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

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

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

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

Gly Gly Ser Thr Val Pro Trp Phe Phe Asp Val Trp Gly Pro Gly Thr
            100                 105                 110
```

Leu Val Thr Val Ser Ser
115

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

<220>
<223> VL

<400> 124

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

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

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

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

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

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ala Asp Ser Asn
85 90 95

Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

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

<220>
<223> VH

<400> 125

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

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

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

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

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 126
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 126

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

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

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

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

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Tyr Tyr Gly Ser Ile
                85                  90                  95
```

Asp Ile Thr Phe Gly Gly Gly Thr Glu Val Val Ala Gln
100 105

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

<220>
<223> VH

<400> 127

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

Ser Leu Thr Leu Thr Cys Thr Glu Ser Gly Phe Ser Phe Ser Ser Asn
20 25 30

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

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

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

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

Ala Arg Gly Asp Asn Ile Ala Tyr Phe Met Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 128
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 128

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

Gly Thr Val Thr Ile Arg Cys Gln Ala Ser Glu Ser Ile Thr Ser Phe
            20                  25                  30

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

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

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

Ala Asp Ala Ala Ala Tyr Tyr Cys Gln Gly Tyr Tyr Tyr Tyr Ser Asn
                85                  90                  95

Val Val Tyr Ala Ser Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 129
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 129

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

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

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

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

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


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


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


<210>  130
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  130

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


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


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


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


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


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr His Ser Thr Ser Gly
                85                  90                  95


Tyr Val Ala Phe Gly Gly Gly Thr Glu Leu Val Val Lys
            100                 105


<210>  131
<211>  121
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH
```

<400> 131

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

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

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

Ile Ala Cys Ile Asp Thr Ala Asp Ala Tyr Thr Tyr Tyr Ala Ser Trp
50 55 60

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 132
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 132

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

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

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

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

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


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


Ala Val Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  133
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  133

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


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


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


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


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


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


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


<210>  134
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 134

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

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

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

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

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

Gln Ser Asp Asp Ala Ala Thr Tyr Phe Cys Gln Gly Thr Tyr Tyr Ser
                85                  90                  95

Asp Gly Trp Tyr Ser Asp Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 135
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 135

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

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

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

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

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

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

His Pro Asn Met Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Ile Ser
            100                 105                 110

Ser
```

<210> 136
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 136

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Ser Tyr Tyr Asp Ala Ser
                85                  90                  95

Ile Phe Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Arg
            100                 105                 110
```

<210> 137
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 137

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

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

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

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

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

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

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

Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 138
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 138

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

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

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

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

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

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

Ala Val Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 139
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 139

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

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

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

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

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

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

Gly Thr Gly Ile Thr Tyr Tyr Asn Leu Trp Gly Gln Gly Ala Leu Val
            100                 105                 110

Thr Val Ser Ser
        115
```

<210> 140
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 140

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

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

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

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

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

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Asn Thr Gly Ile
85 90 95

Thr Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 141
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 141

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

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

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

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

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

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

Asn Pro Gly Asp Asp Val Asn Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 142
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 142

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

Asp Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

Asn Asp Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Arg Thr Ser Ile Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Gly
                85                  90                  95
```

Val Ile Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 143
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 143

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ser
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Phe Ile Asn Thr Gly Gly Arg Gly Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Ala
85 90 95

Gly Ser Ser Arg Gly Tyr Tyr Arg Asp Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 144
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 144

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Tyr Ser Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Thr Thr Ser Thr
                85                  90                  95

Thr Val Asp Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 145
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 145

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Ile Asp Leu Ser Arg His Ala
            20                  25                  30

Ile Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Thr Ile Tyr Ala Ser Gly Ser Thr Phe Tyr Ala Ser Gly Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Gly Ile Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Ile
                85                  90                  95
```

```
Thr Ile Glu Trp Phe Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val
            100                 105                 110


Ser Ser
```

<210> 146
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 146

```
Ala Ala Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Pro Ser Val Tyr Ser Asn
            20                  25                  30


Tyr Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45


Ile Tyr Gly Ala Ala Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Arg
    50                  55                  60


Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Thr Asp Val Gln
65                  70                  75                  80


Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Ser Asp Thr
                85                  90                  95


Ala Asp Thr Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 147
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 147

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Asn Tyr Asp
            20                  25                  30

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly
        35                  40                  45

Tyr Ile Asp Thr Gly Gly Ser Ala Tyr Tyr Ala Ser Trp Val Asn Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Ala Ser Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95

Thr His Gly Tyr Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 148
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 148

```
Ala Leu Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Val Tyr Asn Asn
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Asp Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Asp Trp Glu Ser Ser
85 90 95

Asn Phe Phe Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 149
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 149

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Ala
20 25 30

Met Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Thr Ile Thr Thr Gly Gly Ser Thr Phe Phe Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
85 90 95

Asp Thr Gly Tyr Gly Phe Ser Tyr Phe Asp Leu Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 150
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 150

Ala Val Val Leu Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asn Ile Tyr Ser Ser
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Thr Ser Asn
85 90 95

Leu Val Asn Pro Phe Gly Gly Gly Thr Glu Leu Val Val Asn
100 105 110

<210> 151
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 151

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Asp Tyr
20 25 30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Cys Ile Ser Ala Gly Ser Ser Gly Ser Ile Tyr Tyr Ala Ser Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

```
Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95


Ala Arg Glu Ala Ser Asp Ser Ile Tyr Tyr Pro Ile Phe Asn Leu Trp
            100                 105                 110


Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  152
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  152

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Lys Ser Val Tyr Asn Asn
            20                  25                  30


Asn Ala Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45


Leu Ile Tyr Gly Ala Ser Thr Leu Pro Ser Arg Val Pro Ser Arg Phe
    50                  55                  60


Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80


Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ile Gly Gly Tyr Ser Ser
                85                  90                  95


Ser Ser Asp Thr Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  153
<211>  123
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VH

<400> 153

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Tyr Ala
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Ala Ser Gly Thr Thr Tyr Tyr Ala Arg Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Ile Ser
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Tyr
                85                  90                  95

Asp Ser Tyr Asp Tyr Ala Tyr Gly Ser Ser Ile Tyr Ala Phe Asp Pro
            100                 105                 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 154
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 154

```
Ala Tyr Asp Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Tyr Ser Asn
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45
```

```
Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Ser Ile Ser Gly Val Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ser Ser Asn
                85                  90                  95

Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 155
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 155

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Thr Ile Ser Ser His His
            20                  25                  30

Val Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Val Ile Tyr Pro Ser Gly Thr Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Asp Val
                85                  90                  95

Gly Tyr Phe Thr Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 156
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 156

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Gly Gly Asn
20 25 30

Asn Trp Leu Ala Trp Tyr Gln Gln Lys Leu Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Pro Pro Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Glu Val
65 70 75 80

Gln Ser Asp Asp Ser Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Asp
85 90 95

Val Thr Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 157
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 157

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Arg Phe Ser Leu Ser Thr Ser Thr
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Asn Gly Gly Gly Ser Ala Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

```
Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Tyr
                85                  90                  95


Asp Ser Tyr Asp Asp Ile Tyr Gly Thr Ser Arg Leu Tyr Ala Phe Asp
            100                 105                 110


Pro Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  158
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  158

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Ile Tyr Ser Asn
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Arg Ala Ser Tyr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ser Ser Asp
                85                  90                  95


Val Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  159
<211>  119
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 159

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Ile Cys Thr Ala Ser Gly Ile Asp Leu Ser Ser Tyr Gly
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Thr Ile Gly Asp Thr Tyr Tyr Ala Ser Trp Val Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr Thr
85 90 95

Asn Ser Gly Tyr Ala Met Met Tyr Tyr Phe Asn Leu Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 160
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 160

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Val Asn Ala
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Leu Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Val Ala Ser Tyr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Val Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Tyr Ser Ser Gly
                85                  90                  95

Thr Ser Tyr Gly Gln Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 161
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 161

```
Gln Glu Gln Leu Val Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Ile Asp Phe Ser Ser Ser
            20                  25                  30

Tyr Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Asp Thr Val Asp Asp Tyr Thr Tyr Tyr Ala Ser Trp
    50                  55                  60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Ser
65                  70                  75                  80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95
```

Ala Arg Glu Arg Ile Asp Asn Asn Thr Asp Cys Phe Asp Leu Trp Gly
100 105 110

Pro Gly Thr Leu Val Thr Ile Ser Ser
115 120

<210> 162
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 162

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Val Ser Lys
20 25 30

Asn Arg Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Trp Leu Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Arg Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Gly
85 90 95

Ala Ile Tyr Ala Phe Gly Gly Gly Thr Asp Val Val Val Lys
100 105 110

<210> 163
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 163

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Asn Asn Asn Ala
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Ser Thr Ala Gly Thr Thr Thr Tyr Ala Ser Trp Thr Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Ala
                85                  90                  95

Tyr Phe Ser Tyr Gly Tyr Ile Asn Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115


<210>  164
<211>  108
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  164

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Asn Ala
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Ala Asp Ala Thr Thr Tyr Phe Cys Gln Ser Tyr Val Tyr Ser Asp Gly
                85                  90                  95


Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  165
<211>  113
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  165

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Lys Val Ser Gly Phe Ser Leu Ser Ser Tyr Asp
            20                  25                  30


Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Ile Val Ser Thr Gly Gly Ser Ala Gly Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Thr Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ile Ile
                85                  90                  95


Ser Gly Gly Arg Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser
            100                 105                 110


Ser



<210>  166
<211>  114
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 166

```
Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Ser Arg
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Thr Leu Ala Phe Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Tyr Ser Ser Thr
                85                  90                  95

Ala Ser Tyr Ala Ser Asn Asn Ala Phe Gly Gly Gly Thr Glu Val Val
            100                 105                 110

Val Lys
```

<210> 167
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 167

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Thr Tyr Val
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45
```

```
Tyr Ile Asp Tyr Gly Gly Ala Pro Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
                85                  90                  95

Tyr Gly Gly Tyr Val Leu Val Thr Val Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  168
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  168

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Tyr Ser Ser
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gln Ala Ser Thr Leu Ala Ser Glu Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Asn Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Ser Thr
                85                  90                  95

Tyr Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100                 105                 110
```

<210> 169
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 169

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Tyr Tyr
20 25 30

Ile Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
35 40 45

Thr Ile Ser Thr Ala Gly Asn Thr Tyr Phe Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
85 90 95

Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 170
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 170

Asp Ile Val Leu Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Asp Arg Phe
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Val Asp Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asn Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ile Ser Asp
                85                  90                  95

Ile Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 171
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 171

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Gln Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Phe Asn Ser Asn
            20                  25                  30

Tyr Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Met Thr Gly Asp Gly Ser Thr Tyr Tyr Ala Thr Trp
    50                  55                  60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65                  70                  75                  80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Gly Tyr Asp Gly Ile His Gly Gly Asp Asn Tyr Gly His Val
            100                 105                 110
```

```
Phe Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  172
<211>  108
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  172

Ala Phe Glu Leu Thr Gln Thr Pro Phe Ser Val Ser Ala Val Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asn Ile Tyr Ser Leu
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Gln Phe Thr Leu Ile Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Gly Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Ile Asn Ser Ser
                85                  90                  95


Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  173
<211>  116
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  173

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1               5                   10                  15
```

```
Leu Thr Leu Thr Cys Thr Ala Ser Glu Phe Asp Phe Asn Asn Asn Ala
            20                  25                  30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ala
        35                  40                  45

Cys Ile Tyr Ile Gly Asn Gly Gly Thr Trp Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Ser Ser Ser Thr Thr Val Thr Leu Gln
65                  70                  75                  80

Val Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95

Gly Glu Asn Ile Ala Tyr Phe Ile Leu Trp Gly Pro Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115


<210>  174
<211>  113
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  174

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Asn Ser Trp
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Tyr Tyr Ser Ser
85 90 95

Ser Asn Tyr Ala Ser Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 175
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 175

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Trp
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Phe Ile Tyr Gly Gly Ser Gly Asp Lys Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

Gly Arg Phe Ala Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile
65 70 75 80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
85 90 95

Gly Asp Gly Asp Gly Thr Tyr Ser Ser Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 176
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 176

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Ala Gly Lys
20 25 30

Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Val Leu
35 40 45

Ile Tyr Gly Thr Ser Asn Leu Ala Ser Arg Val Pro Ser Arg Phe Arg
50 55 60

Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu
65 70 75 80

Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Gly Gly
85 90 95

Ile Tyr Gly Phe Gly Gly Gly Thr Glu Val Val Val Glu
100 105

<210> 177
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 177

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Tyr Ile Thr Tyr Gly Gly Ser Thr Tyr Tyr Ala Asn Trp Val Asn Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Met Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Leu Arg
85 90 95

Ala Pro Tyr Tyr Tyr Arg Ile Tyr Phe Asn Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 178
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 178

Ala Leu Val Met Thr Gln Thr Pro Ser Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Ile Ser Ala
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Ala Tyr Asp Thr Asn Ile
85 90 95

Asn Asp Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 179
<211> 120

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 179

Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Glu Gly
1 5 10 15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Cys Ile Ala Thr His Ser Gly Thr Asp Phe Tyr Ala Ser Trp Ala
50 55 60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65 70 75 80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
85 90 95

Arg Asp Pro Tyr Gly Phe Asn Gly Asp Tyr Phe Ser Leu Trp Gly Pro
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 180
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 180

Ala Leu Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Ser
20 25 30

```
Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Tyr Lys Ser Tyr
                85                  90                  95

Thr Asn Asp Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 181
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 181

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Asn Tyr Gly
            20                  25                  30

Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Tyr Ile Asn Tyr Gly Gly Ile Ala Tyr Tyr Ala Ser Trp Val Asn Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95

Gly Tyr Tyr Ser Ala Gly Asn Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110
```

Val Ser Ser
115

<210> 182
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 182

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asp Asn
20 25 30

Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg
35 40 45

Leu Ile Tyr Asp Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Glu Tyr Ser Cys
85 90 95

Leu Ser Asp Asp Cys Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 183
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 183

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Tyr Tyr
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Ile Ile Gly Ser Gly Val Ser Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Ala Ser Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp
                85                  90                  95

Met Tyr Val Gly Asn Trp Gly Asp Trp Gly Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 184
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 184

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Asn Asn
            20                  25                  30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Val Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80
```

```
Val Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Arg Ile Gly Asp
                85                  90                  95


Leu Asp Ser Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  185
<211>  113
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  185

Gln Glu Gln Leu Lys Glu Ser Gly Gly Arg Leu Val Lys Pro Asp Glu
1               5                   10                  15


Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Arg Tyr
            20                  25                  30


Asp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45


Gly Ser Ile Trp Ser Asp Gly Asp Thr Asp Tyr Ala Asn Trp Ala Lys
    50                  55                  60


Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Met Val Asp Leu Lys Ile
65                  70                  75                  80


Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Gly
                85                  90                  95


Tyr Thr Ala Trp Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser
            100                 105                 110


Ser



<210>  186
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 186

```
Ala Leu Val Met Thr Gln Thr Pro Ser Pro Val Ser Ala Thr Val Gly
1               5                  10                  15

Gly Thr Leu Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Val Gly Asn
            20                  25                  30

Asn Ala Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Gln Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Tyr Tyr Ser
                85                  90                  95

Ser Gly Trp Tyr Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 187
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 187

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly
1               5                  10                  15

Thr Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Asn Ser Tyr
            20                  25                  30

Asp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Gly Tyr Ile Trp Ser Asp Gly Asn Thr Asp Tyr Ala Ser Trp Ala Ala
    50                  55                  60
```

```
Gly Arg Phe Thr Ala Ser Arg Ala Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80


Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
                85                  90                  95


Tyr Thr Gly Phe Phe Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser
            100                 105                 110


Ser
```

<210> 188
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 188

```
Asp Val Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Ser
            20                  25                  30


Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45


Ile Tyr Glu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys
    50                  55                  60


Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu
65                  70                  75                  80


Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Gly Gly
                85                  90                  95


Ser Trp Arg Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 189
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 189

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1 5 10 15

Ser Leu Thr Leu Thr Cys Thr Ser Ser Gly Phe Ser Leu Asn Ser Asn
20 25 30

Tyr Tyr Ile Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45

Ile Ala Cys Ile Asp Ala Gly Ser Gly Ser Thr Trp Tyr Ala Ser Trp
50 55 60

Val Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Asp Asp Ile Gly Thr Ser Tyr Glu Tyr Tyr Phe Gly Leu Trp
100 105 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 190
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 190

Asp Val Val Leu Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Thr Ile Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Ser Asp Ser
                85                  90                  95

Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 191
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 191

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Asn Ala
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Phe Ile Asn Thr Gly Ser Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Ala
                85                  90                  95

Asp Asp Ser Arg Gly Tyr Tyr Trp Gly Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 192
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 192

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Pro Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Tyr Ser Leu
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Arg Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Gly Val Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Thr Thr Tyr Thr
85 90 95

Thr Val Asp Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 193
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 193

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

```
Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Leu Ile Gly
        35                  40                  45

Leu Ile Tyr Ala Ser Asn Arg Thr His Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Ser Ser Thr Thr Val Asp Leu Lys Ala Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Tyr Gly
                85                  90                  95

Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 194
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 194

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Gly Asp Asn Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Arg Gly
    50                  55                  60

Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Cys Ala Gly Ser Gly
                85                  90                  95
```

Val Cys Val Gly Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 195
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 195

Gln Ser Leu Glu Glu Ser Gly Gly Gly Leu Val Lys Pro Glu Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser Tyr
20 25 30

Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Cys Ile Tyr Ala Gly Thr Phe Ser Asp Thr Phe Tyr Ala Ser Trp
50 55 60

Thr Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Thr Ser Leu Thr Gly Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Gly His Tyr Tyr Tyr Thr Asp Asn Tyr Thr Ala Asn Gly Tyr
100 105 110

Gly Arg Gly Leu Thr Arg Leu Asp Leu Trp Gly Gln Gly Thr Leu Val
115 120 125

Thr Val Ser Ser
130

<210> 196
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 196

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
20 25 30

Asn Asn Leu Ala Trp Tyr Gln Gln Lys Ala Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65 70 75 80

Glu Ser Asp Asp Ala Ala Ser Tyr Tyr Cys Ala Gly Gly Tyr Thr Thr
85 90 95

Ser Gly Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 197
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 197

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Asp
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Tyr Leu Thr Asp Thr Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Ser
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg His Leu
                85                  90                  95

Asp Thr Ser Ser Gly Gly Phe Tyr Phe Asn Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 198
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 198

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Ser
            20                  25                  30

Lys Ile Leu Ala Trp Tyr Gln Gln Lys Pro Gly Arg Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Phe Cys Gln Gly Glu Phe Thr Cys
                85                  90                  95

Thr Ser Ala Asp Cys Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 199
<211> 116

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 199

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Ile Val Ser Gly Ile Asp Leu Ser Ser Asn Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Gly Phe Ala Gly Ile Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Tyr
85 90 95

Gly Asp Ser Asp Gly Leu Tyr Asn Leu Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 200
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 200

Ala Gln Val Leu Thr Gln Thr Ala Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Tyr Asn Asn
20 25 30

```
Asn Trp Leu Gly Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Gly Tyr Ser Gly
                85                  90                  95

Asn Ile Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Asn
            100                 105                 110
```

<210> 201
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 201

```
Gln Ser Leu Glu Glu Ser Gly Gly Gly Leu Phe Gln Pro Gly Gly Ser
1               5                   10                  15

Leu Thr Leu Thr Cys Lys Ala Ser Gly Leu Asp Phe Ser Thr Asn Tyr
            20                  25                  30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Leu Ile
        35                  40                  45

Ala Cys Ile Ser Thr Ser Ser Gly Asn Thr Trp Tyr Ala Ser Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95

Arg Cys Asp Ile Val Tyr Val Gly Tyr Gly Tyr Ala Ser Arg Leu Asp
            100                 105                 110
```

```
Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  202
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  202

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Val Tyr Asn Asn
            20                  25                  30


Asn Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Phe
        35                  40                  45


Leu Ile Tyr Gly Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60


Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80


Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Gly Ser Thr
                85                  90                  95


Ser Val Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  203
<211>  119
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  203

Gln Gln Gln Leu Glu Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1               5                   10                  15


Thr Leu Thr Leu Pro Cys Lys Ala Ser Gly Phe Thr Ile Ser Ser Asp
            20                  25                  30
```

```
Tyr Asp Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Thr Cys Ile Leu Gly Gly Ser Gly Gly Ser Thr Trp Tyr Ala Asn
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Gln Ser Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Asp Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Thr Arg Ala Ser Gly Phe Thr Tyr Phe Glu Leu Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 204
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 204

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

Lys Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Ser Cys
                85                  90                  95
```

Ser Ser Ser Asp Cys Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 205
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 205

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Lys Pro Asp Glu Thr
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Asp Leu Ser Ser Tyr Ala
20 25 30

Val Val Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Tyr Ile Tyr Gly Gly Ser Gly Ser Thr Trp Tyr Ala Ser Trp Ala Lys
50 55 60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys
65 70 75 80

Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
85 90 95

Ala Tyr Asp Ser Gly Tyr Ile Gly Asn Ser Phe Tyr Ala Phe Asp Pro
100 105 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 206
<211> 108
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 206

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Thr Ile Ser Ser Thr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Pro Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Gly Gly Thr Tyr Thr Cys Ala Gly Tyr Gly Thr Val Gly Val
85 90 95

Thr Ala Phe Gly Gly Gly Thr Glu Val Val Val Arg
100 105

<210> 207
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 207

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Tyr
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
35 40 45

Thr Ile Ser Thr Ala Gly Asn Thr Tyr Phe Ala Ser Trp Val Lys Gly
50 55 60

```
Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Thr Arg Asp Gly
                85                  90                  95


Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110


Val Thr Val Ser Ser
        115


<210>  208
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  208

Ala Ile Asp Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Asp Arg Phe
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Val Asp Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Asp Asn Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ala Ile Ser Asp
                85                  90                  95


Ile Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  209
<211>  116
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VH

<400> 209

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Asn Asn Asn Ala
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Thr Ala Asp Thr Thr Ser Tyr Ala Ser Trp Thr Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Ala
85 90 95

Tyr Phe Ser Tyr Gly Tyr Phe Asn Leu Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 210
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 210

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Asn Ala
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Thr Thr Tyr Phe Cys Gln Ser Tyr Val Tyr Ser Asp Gly
                85                  90                  95

Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 211
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 211

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Gln Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Phe Asp Ser Asn
            20                  25                  30

Tyr Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Pro Glu Trp
        35                  40                  45

Ile Ala Cys Ile Met Thr Gly Asp Gly Ser Ile Tyr Tyr Ala Thr Trp
    50                  55                  60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65                  70                  75                  80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Gly Tyr Asp Gly Ile His Gly Gly Asp Asn Tyr Gly His Val
            100                 105                 110

Phe Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 212
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 212

Ala Phe Glu Leu Thr Gln Thr Pro Phe Ser Val Ser Ala Val Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asn Ile Tyr Thr Leu
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Arg Ala Ser Thr Leu Thr Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Val Asp Ser Gly
85 90 95

Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 213
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 213

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Tyr
20 25 30

```
Met Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Thr Ile Ser Thr Ala Gly Asn Thr Tyr Phe Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
                85                  90                  95

Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  214
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  214

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Asp Arg Phe
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Val Asp Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asn Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ile Ser Asp
                85                  90                  95
```

Ile Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 215
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 215

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Arg Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Leu Ser Phe Ser Asp Arg Tyr
20 25 30

Trp Ile Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Ser Ile Tyr Thr Gly Ser Asp Gly Val Ala Asp Tyr Ala Thr Trp
50 55 60

Ala Lys Gly Arg Val Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Asp Arg Glu Tyr Gly Ser Asn Thr Gly Val Tyr Ser Leu Trp
100 105 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 216
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 216

Asp Val Leu Met Thr Gln Thr Pro Ser Ser Val Ser Pro Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Tyr Ser Asn
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Val
        35                  40                  45

Tyr Asp Ala Ser Asn Leu Glu Tyr Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Asn Tyr Tyr Cys Gln Cys Thr Tyr Tyr Gly Asn Asn
                85                  90                  95

Tyr Ile Thr Phe Gly Gly Gly Thr Glu Val Val Val Arg
            100                 105
```

<210> 217
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 217

```
Gln Gln Gln Leu Glu Glu Ser Gly Gly Gly Leu Val Lys Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Thr Leu Ser Ser Tyr
            20                  25                  30

Leu Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Leu Ile
        35                  40                  45

Gly Cys Ile Gly Thr Tyr Ser Gly Ala Thr Tyr Tyr Gly Ser Trp Ala
    50                  55                  60

Lys Asp Arg Phe Thr Ile Ala Lys Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95
```

```
Arg Asp Tyr Asn Phe Ala Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110


Ser Ser
```

<210> 218
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 218

```
Ala Ile Val Met Thr Gln Thr Pro Ser Ser Lys Ser Val Pro Val Gly
1               5                   10                  15


Asp Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Val Tyr Asn Asn
            20                  25                  30


Asn Tyr Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45


Leu Ile Tyr Gly Ala Ser Thr Leu Thr Ser Gly Val Pro Ser Arg Phe
    50                  55                  60


Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80


Val Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Tyr Lys Ser Ser
                85                  90                  95


Trp Thr Asp Gly Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 219
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 219

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Ala Ala Ser Gly Phe Ser Leu Asn Ser Tyr Val
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Tyr Ile Asp Tyr Gly Gly Ala Pro Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Ile Glu Asp Thr Gly Thr Tyr Phe Cys Ala Arg Gly Gly
                85                  90                  95

Tyr Gly Gly Tyr Val Leu Val Thr Ala Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  220
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  220

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asn Ile Tyr Ser Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gln Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60
```

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Ser Thr
85 90 95

Tyr Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Glu
100 105 110

<210> 221
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 221

Gln Glu Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Thr Leu Pro Cys Thr Ala Ser Gly Phe Thr Leu Ser Ser Arg
20 25 30

Tyr Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45

Ile Gly Cys Ile Tyr Ala Gly Ser Leu Arg Thr Trp Tyr Ala Ser Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Ser Pro Gly Val Ala Ala Ser Tyr Pro Glu Leu Trp Gly Pro
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 222
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 222

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ala Ala Ala Val Gly
1 5 10 15

Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Gln Ser Val Gly Asn Ala
20 25 30

Asp Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Asn Leu
35 40 45

Leu Ile Tyr Tyr Ala Ala Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65 70 75 80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gly Gly Gly Tyr Tyr Asn
85 90 95

Ser Thr Asp Thr Phe Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 223
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 223

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Gln Pro Glu Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Asp Phe Ser Ser Thr Tyr
20 25 30

Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

```
Gly Cys Ile Asp Asp Ser Tyr Ala Tyr Thr Tyr Tyr Ala Ser Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Lys Pro Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Val Thr Ser Leu Thr Val Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95

Arg Asp Gly Tyr Pro Gly Tyr Gly Val Gly Ser Phe Asn Leu Trp Gly
            100                 105                 110

Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 224
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 224

```
Ala Ile Val Met Thr Gln Thr Pro Ser Ser Lys Ser Val Pro Val Gly
1               5                   10                  15

Asp Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Val Tyr Ser Asn
            20                  25                  30

Asn Arg Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Val Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Tyr Lys Ser Tyr
                85                  90                  95

Ser Asp Asp Gly Thr Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 225
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 225

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Val
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Tyr Ile Asp Tyr Gly Gly Ala Pro Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
85 90 95

Tyr Gly Gly Tyr Val Leu Val Thr Val Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 226
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 226

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Tyr Ser Ser
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gln Ala Ser Arg Leu Ala Ser Glu Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Ser Thr
                85                  90                  95

Tyr Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100                 105                 110


<210>  227
<211>  125
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  227

Gln Glu His Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Asp Leu Ser Ile Asn
            20                  25                  30

Val Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Pro Glu Trp Ile
        35                  40                  45

Val Cys Ile Asp Asn Gly Asp Gly Ser Thr Tyr Tyr Ala Ser Trp Val
    50                  55                  60

Asn Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95
```

```
Arg Pro Gly Thr Phe Thr Tyr Gly Gly Asn Thr Tyr Pro Gly Ser Phe
            100                 105                 110


Val Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  228
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  228

Ala Phe Glu Leu Thr Gln Thr Pro Ser Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asn Ala
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Thr Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Tyr Val Asn Ile Ile
                85                  90                  95


Gly Ile Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  229
<211>  116
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  229

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15
```

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Asp Ile Tyr Gly Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Phe Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Lys
85 90 95

Gly Tyr Asn Tyr Asn Leu Trp Asn Leu Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 230
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 230

Asp Ile Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Ile Tyr Thr Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Ser Tyr Ser Gly Ser
                85                  90                  95

Ser Ser Ala Asn Pro Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 231
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 231

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Asp
            20                  25                  30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Leu Thr Asp Thr Thr Tyr Tyr Ala Asn Trp Thr Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Ser
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg His Leu
                85                  90                  95

Asp Thr Ser Ser Gly Gly Phe Tyr Phe Asn Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 232
<211> 113
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 232

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Ser
20 25 30

Lys Ile Leu Ala Trp Tyr Gln Gln Lys Pro Gly Arg Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Asp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Phe Cys Gln Gly Glu Phe Thr Cys
85 90 95

Thr Ser Ala Asp Cys Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 233
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 233

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Glu Phe Ser Phe Ser Asn Asn Tyr
20 25 30

Tyr Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

```
Ala Cys Ile Tyr Val His Ser Gly Thr Thr Asp Tyr Ala Thr Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Arg Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Val Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95

Arg Gly Arg Ser Gly Tyr Tyr Ala Asp Ala Phe Asp Thr Trp Gly Pro
            100                 105                 110

Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 234
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 234

```
Ala Leu Asp Met Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

Asn Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Leu Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Glu Ile
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Asp Ser Ser
                85                  90                  95

Ser Gly Trp Glu His Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 235
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 235

Gln Glu Gln Leu Val Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Thr
1 5 10 15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Leu Asp Phe Ser Ser Thr
20 25 30

Pro Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45

Ile Ala Cys Ile Tyr Thr Gly Ser Val Ile Tyr Thr Tyr Tyr Ala Ser
50 55 60

Trp Ala Lys Asp Arg Phe Thr Ile Ser Lys Ile Ser Ser Thr Ser Val
65 70 75 80

Thr Leu Gln Met Thr Ser Leu Thr Val Ala Asp Thr Ala Thr Tyr Phe
85 90 95

Cys Ala Arg Ser Pro Ala Gly Tyr Ala Ala Tyr Gly Tyr Gly Gly Phe
100 105 110

Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 236
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 236

Ala Ile Glu Met Thr Gln Thr Pro Phe Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Ile Tyr Asn Asn
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Glu Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Tyr Tyr Ser Ser Ser
                85                  90                  95

Ala Thr Asp Met Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 237
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 237

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr His
            20                  25                  30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Ala Gly Ser Gly Asn Thr Trp Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gln
                85                  90                  95

Pro Gly Gly Gly Ala Ser Asp Thr Gln Leu Asp Leu Trp Gly Gln Gly
            100                 105                 110
```

Thr Leu Val Thr Val Ser Ser
        115

<210> 238
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 238

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1   5   10   15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Phe Asp Asn
            20   25   30

Asn Gln Leu Ser Trp Phe Gln His Lys Pro Gly Gln Ser Pro Lys Leu
        35   40   45

Leu Ile Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50   55   60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65   70   75   80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Ser Ser
                85   90   95

Ser Ser Asp Thr Val Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100   105   110

<210> 239
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 239

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1   5   10   15

```
Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Arg
            20                  25                  30

Phe Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Tyr Gly Gly Ser Thr Ser Ala Thr Tyr Asp Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Thr Arg Leu Pro Thr Tyr Asp Ala Tyr Val Phe Asn Leu Trp Gly
            100                 105                 110

Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 240
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 240

```
Ala Ile Val Met Thr Gln Thr Pro Ser Ser Lys Ser Val Pro Val Gly
1               5                   10                  15

Ala Thr Ala Thr Ile Asn Cys Gln Ala Ser Glu Ser Val Phe Ser Asn
            20                  25                  30

Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Arg Ser Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Glu Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80
```

Val Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gly Gly Tyr Lys Ser Asn
85 90 95

Asn Val Asp Gly Tyr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 241
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 241

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn His Tyr His
20 25 30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

Arg Ile Asp Asn Ser Gly Tyr Ile Val Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Ala Asp Thr Ala Thr Tyr Phe Cys Gly Lys Tyr Tyr
85 90 95

Ser Gly Gly Ser Tyr Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val
100 105 110

Ser Ser

<210> 242
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 242

Ala Gln Val Leu Thr Gln Thr Ala Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Trp Asn Asn
20 25 30

Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Glu Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Ser Cys
85 90 95

Ser Ser Asp Asp Cys Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 243
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 243

Gln Glu Gln Leu Lys Glu Ser Gly Gly Gly Leu Val Thr Pro Gly Gly
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Gly His
20 25 30

Asp Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Ile Ile Gly Ser Asn Ser Lys Thr Tyr Tyr Thr Asn Trp Ala Lys
50 55 60

```
Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Gly Leu Arg Ile
65                  70                  75                  80


Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Thr Val Val
                85                  90                  95


Gly Pro Gly Val Gly Gly Phe Tyr Phe Asp Leu Trp Gly Gln Gly Thr
            100                 105                 110


Leu Val Thr Val Ser Ser
        115


<210>  244
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  244

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Asp Pro Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Arg Cys Gln Ala Ser Gln Ser Ile Gly Ser Asp
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ala Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Val Gly Ser Thr
                85                  90                  95


Tyr Leu Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  245
<211>  117
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 245

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Asn Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Val Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
85 90 95

Asp Ser Gly Arg Gly Tyr Tyr Phe His Phe Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 246
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 246

Ala Phe Glu Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Tyr Ser Leu
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Ile Tyr Tyr Cys Gln Gln Gly Tyr Thr Thr Val Thr
                85                  90                  95

Ile Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 247
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 247

```
Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Glu Gly Ser
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser Tyr
            20                  25                  30

Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Gly Cys Met Ile Thr Gly Arg Gly Asn Thr Tyr Tyr Ala Thr Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95

Arg Gly Pro Gly Gly Ala Asp Pro Ile Asn Leu Trp Gly Pro Gly Thr
            100                 105                 110
```

Leu Val Thr Val Ser Ser
        115

<210> 248
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 248

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1   5   10   15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Tyr Asn Asn
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35   40   45

Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Glu Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65   70   75   80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Thr Tyr Asp Gly Ser Ser
                85   90   95

Tyr Val Pro Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105   110

<210> 249
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 249

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1   5   10   15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
            20   25   30

```
Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Leu Ile Gly
        35                  40                  45

Leu Ile Tyr Ala Ser Asp Arg Thr His Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Ser Ser Thr Thr Val Asp Leu Lys Ala Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Tyr Gly
                85                  90                  95

Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 250
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 250

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Gly Asp Asn Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Arg Gly
    50                  55                  60

Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Cys Ala Gly Ser Gly
                85                  90                  95
```

```
Val Cys Val Gly Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  251
<211>  123
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  251

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
            20                  25                  30


Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Tyr Ile Tyr Gly Gly Ser Gly Ser Thr Trp Tyr Ala Ser Trp Ala Lys
    50                  55                  60


Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys
65                  70                  75                  80


Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95


Ala Tyr Asp Ser Gly Tyr Ile Gly Asn Ser Phe Tyr Ile Phe Asp Pro
            100                 105                 110


Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  252
<211>  108
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  252
```

```
Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Thr Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Ser Arg
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Arg Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Gly Ala Thr Tyr Tyr Cys Ala Gly Tyr Gly Gly Leu Gly Ile
                85                  90                  95

Thr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 253
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 253

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Tyr Tyr
            20                  25                  30

Ile Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Thr Ile Ser Thr Ala Gly Asn Thr Tyr Phe Ala Ser Trp Ala Asn Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80
```

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
                85                  90                  95


Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110


Val Thr Val Ser Ser
        115


<210>  254
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  254

Asp Ile Val Leu Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Asp Arg Phe
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Val Asp Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Asp Asn Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ile Ser Asp
                85                  90                  95


Ile Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  255
<211>  119
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH
```

<400> 255

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser His Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

Ile Ile Asp Thr Asp Ala Ser Ala Ser Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
85 90 95

Gly Tyr Thr Asp Tyr Ser Tyr Tyr Ala Met Asp Leu Trp Gly Pro Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 256
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 256

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Thr Ile Tyr Val Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

```
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Val Lys Ser
65                  70                  75                  80


Val Asp Ala Ala Thr Tyr Tyr Cys His Gln Ala Tyr Arg Arg Ser Asp
                85                  90                  95


Val Gly Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  257
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  257

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Asp
            20                  25                  30


Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Trp Ile Thr Thr Asp Gly Gly Thr Asp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Val Ser Lys Ala Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95


Ala Ser Phe Asn Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110


<210>  258
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 258

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Leu Ser Asn
20 25 30

Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Ala Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65 70 75 80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Asp Tyr Ser
85 90 95

Gly Gly Trp Tyr Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 259
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 259

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Ala
35 40 45

Ile Ile Tyr Thr Thr Asn Arg Thr His Tyr Ala Thr Trp Ala Lys Gly
50 55 60

```
Arg Phe Thr Ile Ser Lys Ser Ser Thr Thr Val Asp Leu Lys Ala Thr
65                  70                  75                  80


Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Tyr Gly
                85                  90                  95


Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu Trp Gly Pro Gly
            100                 105                 110


Thr Leu Val Thr Val Ser Ser
        115


<210>  260
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  260

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Gly Asp Asn Tyr
            20                  25                  30


Cys Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Gln Ala Ser Lys Leu Thr Ser Gly Val Pro Ser Arg Phe Arg Gly
    50                  55                  60


Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Cys Ala Gly Ser Gly
                85                  90                  95


Val Cys Leu Gly Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  261
<211>  118
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VH

<400> 261

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1 5 10 15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Asp Phe Ser Ser Asp
20 25 30

Ala Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Cys Ile Tyr Val Gly Ser Val Gly Ser Ser Trp Tyr Ala Ser Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Ser Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Val Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Gly Glu Asn Ile Ala Tyr Phe Thr Phe Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 262
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 262

Asp Ile Met Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Asn Ser Trp
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Glu Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Tyr Tyr Ser Ser
                85                  90                  95

Ser Asn Phe Ala Ser Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 263
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 263

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Leu Ser Leu Ser Ser Tyr Asp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Tyr Ile Trp Ser Gly Gly Ser Thr Asp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Ile
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95

Val Glu Phe Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 264
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 264

Asp Pro Val Leu Thr Gln Thr Pro Pro Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Leu Tyr Ser Asn
20 25 30

Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Ala Gly Gln Pro Pro Lys Val
35 40 45

Leu Ile Trp Pro Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Ala Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Glu Leu
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Phe Tyr Asp
85 90 95

Ser Gly Trp Leu Ser Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 265
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 265

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Asn Ser Tyr Tyr
20 25 30

```
Ile Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Phe Ile Asn Gly Tyr Asp Asn Thr Trp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Pro
                85                  90                  95

Gly Gly Ala Ser Gly Thr Gly Arg Leu Asp Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 266
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 266

```
Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Thr Ala
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Asn Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Asp Ala Tyr
                85                  90                  95
```

Asp Val Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Asn
100 105 110

<210> 267
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 267

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Lys Ala Ser Gly Ile Asp Leu Ser Ser Tyr Trp
20 25 30

Met Cys Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Cys Ile Ala Thr Tyr Ser Ser Val Thr Tyr Tyr Ala Asn Trp Ala Lys
50 55 60

Gly Arg Phe Thr Ile Ser Lys Pro Ser Ser Thr Thr Val Thr Leu Gln
65 70 75 80

Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg
85 90 95

Asp Pro Tyr Ser Phe Asn Gly Ser Leu Phe Thr Leu Trp Gly Pro Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 268
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 268

Ala Leu Val Met Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Asp Cys Gln Ala Ser Gln Asn Ile Gly Thr Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Thr Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Tyr Lys Asn Tyr Asn Asn
                85                  90                  95

Asp Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 269
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 269

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Asn Tyr Asp
            20                  25                  30

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly
        35                  40                  45

Tyr Ile Asp Thr Gly Gly Ser Ala Tyr Tyr Ala Asn Trp Val Asn Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Ala Ser Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95
```

```
Ile His Gly Tyr Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110


<210>  270
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  270

Ala Leu Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Val Tyr Asn Asn
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Glu Leu Leu Ile
        35                  40                  45


Asp Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Asp Trp Glu Ser Ser
                85                  90                  95


Asn Phe Phe Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  271
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  271

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15
```

```
Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Gly
            20                  25                  30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Met Ile Ile Asp Val Thr Tyr Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Thr Pro
                85                  90                  95

Gly Tyr Gly Ile Tyr Ala Tyr Gly Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 272
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 272

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Tyr Gly Asn
            20                  25                  30

Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Glu Val
65                  70                  75                  80
```

```
Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Ser
                85                  90                  95

Ala Ala Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 273
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 273

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Met Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Val
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Cys Ile Gly
        35                  40                  45

Val Ile Tyr Gly Gly Gly Thr Ile Trp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Met Asp Leu Gln Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
                85                  90                  95

Ser Ser Ser Gly Asp Pro Gly Phe Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 274
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 274

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asn Trp
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg Leu Ile
35 40 45

Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Thr Gly Ser Thr Ala Tyr
85 90 95

Gly Arg Ala Phe Gly Gly Gly Thr Glu Val Val Val Arg
100 105

<210> 275
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 275

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser His Tyr His
20 25 30

Ile Leu Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Lys Tyr Ile Gly
35 40 45

Ile Thr Leu Asn Asn Gly Arg Ile Asp Tyr Ala Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Glu Ile Thr
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Lys Tyr Phe
                85                  90                  95

Val Ser Glu Ser Tyr Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 276
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 276

```
Thr Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Ser Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asp
            20                  25                  30

Asn Trp Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Gly Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Lys Asp
                85                  90                  95

Asn Ser Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 277
<211> 112
<212> PRT
<213> Artificial Sequence

<220>

<223> VH

<400> 277

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Asp
20 25 30

Met Asn Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
35 40 45

Ala Ile Ser Thr Gly Gly Asp Thr His Tyr Thr Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
85 90 95

Tyr Thr Leu Ala Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 278
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 278

Asp Pro Val Leu Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Asn Ser Trp
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg Leu Ile
35 40 45

Tyr Asp Thr Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Gly Glu Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Tyr Ile Thr Ser
85 90 95

Ser Tyr Ala Ile Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 279
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 279

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ser Asp Ile Ser Gly Tyr Ala
20 25 30

Leu Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

Val Ile Ala Ala Asp Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
85 90 95

Ser Ser Gly Trp Gly Thr Tyr Gly Tyr Phe Asp Leu Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 280
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 280

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Tyr Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Arg Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Tyr Ser His Ser
85 90 95

Thr Thr Tyr Ser Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 281
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 281

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Met Asn Thr Arg Ser Gly Ile Ile Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

```
Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val His Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Leu
                85                  90                  95

Tyr Ala Asp Val Ser Gly Tyr Tyr Leu Gly Leu Trp Gly Pro Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 282
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 282

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Leu Tyr Asn Asn
            20                  25                  30

Lys Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Ile Cys
                85                  90                  95

Ser Ser Ala Asp Cys Val Val Phe Gly Gly Gly Thr Ala Val Val Val
            100                 105                 110

Lys
```

<210> 283
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 283

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Tyr Tyr Tyr
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Thr Gly Gly Gly Gly Asp Thr Tyr Tyr Gly Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Thr
85 90 95

Asp Gly Ala Ala His Thr Gly Phe Ala Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 284
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 284

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Ser Ser Arg
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ser Ser Tyr Gly Thr Ser
                85                  90                  95

Thr Ile Tyr Gly Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 285
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 285

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Phe Tyr
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Ser Thr Gly Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ser Ser Lys Thr Ser Thr Thr Val Asp Leu Gln Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Ser
                85                  90                  95
```

```
Gly Thr Asp Gly Ala Trp Leu Tyr Tyr Gly Ile Asp Leu Trp Gly Pro
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  286
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  286

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asn Ile Gly His Ala
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Arg Thr Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Gln Phe Ser Leu Thr Ile Ser Asp Leu Asp Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Phe Cys Gln Ile Asn Tyr Gly Gly Gly Ser
                85                  90                  95


Gly Gly Tyr Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  287
<211>  122
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  287

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1               5                   10                  15
```

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser
20 25 30

Tyr Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Pro Glu Trp
35 40 45

Ile Ala Cys Ile Tyr Thr Tyr Ser Gly Asp Thr Asp Tyr Ala Asn Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Lys Ala Gly Tyr Gly Gly Tyr Gly Tyr Pro Ile Phe Asn Leu Trp
100 105 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 288
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 288

Ala Phe Glu Leu Thr Gln Thr Pro Ser Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Ser
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Met
35 40 45

Tyr Tyr Val Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Gly Ser Gly Thr
                85                  90                  95

Thr Val Phe Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 289
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 289

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Tyr Ile Trp Ser Gly Gly Thr Thr Asp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Asp Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Leu
                85                  90                  95

Gly Asp Arg Gly Ser Ser Asp Tyr Tyr Met Pro Leu Lys Leu Trp Gly
            100                 105                 110

Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 290
<211> 111
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 290

```
Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Glu Ser Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Arg Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Leu Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Asp Gly Ser Ser
                85                  90                  95

Ala Val Trp Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 291
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 291

```
Gln Glu Gln Leu Lys Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Glu
1               5                  10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr
            20                  25                  30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Gly Met Ile Ser Thr Gly Gly Ser Ala Tyr Tyr Ala Asn Trp Ala Arg
    50                  55                  60
```

```
Gly Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Val
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
                85                  90                  95

Trp Arg Tyr Glu Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110

Ser
```

<210> 292
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 292

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                  10                  15

Ser Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Thr Val Tyr Asn Asn
            20                  25                  30

Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Tyr Tyr Asp
                85                  90                  95

Asn Ala Trp Tyr His Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 293
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 293

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Val
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Tyr Ile Asp Tyr Gly Gly Thr Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
85 90 95

Tyr Gly Gly Tyr Thr Leu Val Thr Ala Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 294
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 294

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Ser Thr Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Gly Pro
                85                  90                  95

Phe Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 295
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 295

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Gly
            20                  25                  30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Trp Ile Ser Ser Asn Asp Asn Lys Tyr Tyr Ala Arg Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Asn Gly
                85                  90                  95

Val Tyr Asn Thr Gly Asn Tyr Phe Asp Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 296
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 296

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Leu Tyr Asn Asn
20 25 30

Lys Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Phe
35 40 45

Leu Ile Tyr Thr Ala Ser Ser Leu Ala Ser Gly Val Ser Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Asp Cys
85 90 95

Asp Ser Asp Asp Cys Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 297
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 297

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Ala
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Thr Gly Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Glu Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Pro Glu Asp Thr Ala Thr Tyr Phe Cys Thr Arg Asp Leu
                85                  90                  95

Gly Ala Thr Tyr Asp Tyr Phe Asp Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115


<210>  298
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  298

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Thr Ala
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Thr Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80
```

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Arg His Thr Asn
85 90 95

Val Asp Asn Pro Phe Gly Gly Gly Thr Gly Val Val Val Lys
100 105 110

<210> 299
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 299

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Lys Tyr Asp
20 25 30

Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Met Ile Gly Ala Ser Asp Arg Thr Tyr Tyr Ala Ser Trp Val Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Tyr
85 90 95

Pro Asp Ala Arg Gly Tyr Tyr Tyr Asn Leu Trp Gly Pro Gly Thr Pro
100 105 110

Val Thr Val Ser Ser
115

<210> 300
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 300

Ala Leu Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asp Leu
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ile Thr Asn
85 90 95

Val Asp Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 301
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 301

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Asn Ala
20 25 30

Ile Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ala
35 40 45

Ile Ile Thr His Ser Asp Asn Thr Phe Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Ala Ser Thr Thr Val Asp Leu Lys Val Thr
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Gly
                85                  90                  95

Tyr Val Ser Ser Ser Gly Thr Tyr Met Gly Gly Tyr Phe Asp Leu Trp
            100                 105                 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 302
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 302

```
Asp Pro Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ile Ile Tyr Asn Asp
            20                  25                  30

Lys Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Lys Gly Ser Ala Ser Gly Thr Gln Phe Thr Phe Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Ser Cys
                85                  90                  95

Ser Ser Ala Asp Cys Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 303
<211> 119

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 303

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Val Ile Gly Ala Gly Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Asn Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Ser
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Ile
85 90 95

Gly Gly Asp Tyr Ser Ser Arg Tyr Tyr Phe Ser Leu Trp Gly Pro Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 304
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 304

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Thr Ser Thr Ala
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ser Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Asp Asp Ala Ala Ser Tyr Tyr Cys Gln Gln Gly Tyr Asn Ile Asn Asn
                85                  90                  95

Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 305
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 305

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Thr Ile Ser Ser His His
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Leu Gly
        35                  40                  45

Val Ile Phe Pro Ser Gly His Thr Tyr Tyr Thr Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Ala
65                  70                  75                  80

Ser Leu Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Asp Val
                85                  90                  95

Gly Tyr Phe Thr Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 306
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 306

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Gly Gly Asn
20 25 30

Asn Trp Leu Ala Trp Tyr Gln Gln Lys Leu Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Glu Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Ser Asp
85 90 95

Val Thr Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
100 105 110

<210> 307
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 307

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Tyr
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Phe Ile Thr Ser Gly Gly Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys
65                  70                  75                  80

Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95

Tyr Gly Asp Ser Phe Tyr Trp Ala Leu Asp Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 308
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 308

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Leu Asn Asn
            20                  25                  30

Asp Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45

Ile Tyr Ala Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys
    50                  55                  60

Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Asn Val Gly Gln
65                  70                  75                  80

Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Phe Ile Asp Val
                85                  90                  95

Asn Asn Pro Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 309
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 309

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Arg Tyr Asp
            20                  25                  30


Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Phe Ile Gly Ala Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Val Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Glu
                85                  90                  95


Thr Asp Ser Arg Gly Tyr Tyr Tyr Ser Leu Trp Gly Pro Gly Thr Pro
            100                 105                 110


Val Thr Val Ser Ser
        115
```

<210> 310
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 310

```
Ala Leu Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                  10                  15
```

```
Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asp Leu
            20                  25                  30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ile Asn Asn
                85                  90                  95

Val Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 311
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 311

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Gly
            20                  25                  30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ala
        35                  40                  45

Trp Ser Ser Ser Asn Asp Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asn
                85                  90                  95
```

```
Gly Val Tyr Ser Thr Gly Asn Tyr Phe Asp Leu Trp Gly Gln Gly Thr
            100                 105                 110


Leu Val Thr Val Ser Ser
        115


<210>  312
<211>  113
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  312

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30


Asn Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Phe
        35                  40                  45


Leu Ile Tyr Ala Ala Ser Arg Leu Pro Ser Gly Val Pro Pro Arg Phe
    50                  55                  60


Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80


Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Asp Cys
                85                  90                  95


Asp Ser Ala Asp Cys Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110


Lys



<210>  313
<211>  121
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH
```

<400> 313

Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Asn
20 25 30

Tyr Cys Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45

Ile Ala Cys Ile Cys Ala Gly Ala Ser Gly Ala Thr Tyr Tyr Ala Ser
50 55 60

Trp Ala Lys Gly Arg Phe Thr Val Ser Lys Thr Ser Ser Thr Thr Val
65 70 75 80

Thr Leu Gln Met Thr Ser Leu Thr Gly Ala Asp Thr Ala Thr Tyr Phe
85 90 95

Cys Ala Arg Tyr Asp Asn Ser Gly Trp Gly Asp Phe Lys Leu Trp Gly
100 105 110

Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 314
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 314

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Ile Gly Thr Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Tyr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Val Ala Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Thr Tyr Tyr Asp Ser Pro
85 90 95

Val Val Gly Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 315
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 315

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Ser Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Thr Gly Gly Ser Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Ile Cys Ala Arg Asp Val
85 90 95

Gly Gly Thr Thr Val Pro Tyr Tyr Phe Asp Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 316
<211> 110

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 316

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Met Glu Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Ser Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Pro Leu Ile
35 40 45

Tyr Glu Ala Ser Arg Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Gly Ser Ser Asp
85 90 95

Val His Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 317
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 317

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Tyr His
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Ile Ile Tyr Ala Gly Ser Asp Ser Thr Trp Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gln
                85                  90                  95

Pro Gly Gly Gly Ala Ser Asp Thr Gln Leu Asp Leu Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 318
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 318

```
Ala Ala Val Leu Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Asn Ile Phe Asp Asn
            20                  25                  30

Asn Gln Leu Ser Trp Phe Gln His Lys Ser Gly Gln Ser Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Ser Ser
                85                  90                  95

Ser Ser Asp Thr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 319
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 319

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Asp Glu Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Asn Ala
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Asp Thr Gly Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Arg
85 90 95

Tyr Thr Asp Ser Ser Gly Tyr Asn Leu Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 320
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 320

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ala Ser
20 25 30

```
Leu Ala Trp Tyr Lys Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Trp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Ala Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Tyr Arg Ser Ser
                85                  90                  95

Ser Gly Tyr Gly Tyr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 321
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 321

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Val
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Tyr Ser Asp Tyr Gly Gly Thr Ala Tyr Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Glu Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
                85                  90                  95

Tyr Asp Gly Tyr Leu Leu Val Thr Gly Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110
```

Val Thr Val Ser Ser
115

<210> 322
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 322

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Tyr Tyr Gly Gly Gly Pro
85 90 95

Phe Gly Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 323
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 323

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Lys Pro Asp Glu Thr
1 5 10 15

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Thr Ser Tyr Ala
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ala Ile Gly Ser Gly Gly Gly Ile Tyr Tyr Ala Ser Trp Ala Arg Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80

Pro Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Val
                85                  90                  95

Pro Gln Trp Ala Tyr Leu Asp Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115


<210>  324
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  324

Ala Gln Val Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Tyr Lys Asn
            20                  25                  30

Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80
```

Gln Ser Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Tyr Gly Gly
85 90 95

Gly Ile Phe Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 325
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 325

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Thr Ile Ser Thr Ile Ser Asn Thr Tyr Tyr Ala Ser Trp Ala Asn Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Thr Ala Ser Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Ala
85 90 95

Ser Asn Thr Ile Asn Asp Tyr Phe Asn Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 326
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 326

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Val Gly Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

Ser Gly Phe Ala Thr Glu Phe Ile Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Thr Asp Ala Ala Thr Tyr Tyr Cys His Ser Tyr Val Tyr Ser Ser Gly
85 90 95

Asn Val Tyr Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 327
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 327

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Asn Val
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Tyr Ile Tyr Ala Ser Ala Thr Thr Tyr Tyr Ala Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Arg
                85                  90                  95

Leu Ala Ser Arg Gly Asp Tyr Ser Asp Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 328
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 328

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Gly Asp Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Thr Thr Thr Ser
                85                  90                  95

Asn Val Asp Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 329
<211> 117
<212> PRT
<213> Artificial Sequence

<220>

<223> VH

<400> 329

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Gly Tyr His
20 25 30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Gln Tyr Ile Gly
35 40 45

Ile Ile Gly Ser Asn Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Ser
50 55 60

Arg Ser Thr Ile Thr Arg Asn Thr Asn Glu Asn Thr Val Thr Leu Lys
65 70 75 80

Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
85 90 95

Ser Ser Gly Trp Gly Ala Arg Phe Asn Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 330
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 330

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Tyr Asn Asp
20 25 30

Asn Glu Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

```
Leu Ile Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Pro Leu Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Asp Val Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Gly Met Thr
                85                  90                  95

Pro Ser Asp Thr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 331
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 331

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Tyr
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Asp Arg Ala Gly Thr Thr Tyr Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Gly Thr Tyr Phe Cys Ala Arg Asn Phe
                85                  90                  95

Ile Tyr Gly Val Gly Thr Tyr Tyr Gly Ser Asp Leu Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 332
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 332

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Asp Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Arg Arg
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Asp Thr Asp Tyr Gly Ser Gly
85 90 95

His Leu Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 333
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 333

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Ser Cys Thr Val Asn Gly Phe Ser Leu Ser Ser His Gly
20 25 30

Val Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Ile Ile Tyr Val Ile Ser Gly His Ala Tyr Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80

Ala Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
                85                  90                  95

Asn Tyr Gly Ser Asp Ser Gly Pro Asn Phe Thr Arg Leu Asp Leu Trp
            100                 105                 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 334
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 334

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Thr Val Gly
1               5                   10                  15

Gly Thr Leu Thr Ile Asn Cys Gln Ala Ser Gln Ser Leu Tyr Asn Asn
            20                  25                  30

Asp Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Ser Cys
                85                  90                  95

Ser Ser Gly Asp Cys Leu Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110
```

Lys

<210> 335
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 335

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Asp
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys Met
65 70 75 80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Thr
85 90 95

Ser Leu Asp Gly Asn Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100 105 110

Ser

<210> 336
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 336

```
Ala Phe Glu Met Thr Gln Thr Pro Ser Ser Val Ser Glu Pro Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Tyr Asn Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Ala Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Ser Val Ser Asp
                85                  90                  95

Val Asp Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 337
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 337

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Ser His
            20                  25                  30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Val Ile Asn Ile Gly Asp Ile Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80
```

Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Asn
85 90 95

Ala Tyr Gly Thr Gly Trp Asp Phe Asp Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 338
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 338

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Arg Asn Ala
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Gln Leu Ile
35 40 45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Phe Ser Leu Arg Asn
85 90 95

Val Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 339
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 339

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Leu Ser Gly Phe Ser Leu Ser Asn Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Val Ile Tyr Thr Ser Gly Thr Thr His Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Met Thr
65 70 75 80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Arg
85 90 95

Tyr Tyr Gly Ser Gly Trp Gly Gly Tyr Tyr Phe Asn Leu Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 340
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 340

Asp Val Val Met Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Tyr Ser Leu
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys His Gly Gly Thr Tyr Thr Gly Ser
85 90 95

Ala Asp Ile Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
100 105 110

<210> 341
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 341

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Asn Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ala Ile Gly Ile Gly Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Met Val Asp Leu Lys Val Ala
65 70 75 80

Ser Pro Thr Pro Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg His Ala
85 90 95

Gly Ala Gly Val Val Asn Trp Leu Asp Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 342
<211> 111

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 342

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Phe Tyr Cys Gln Thr Tyr Gly Ser Gly Ser Phe
85 90 95

Ser Ser Phe Asn Leu Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 343
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 343

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Tyr
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Ile Ile Asn Thr Ser Gly Gly Ala Tyr Tyr Ala Thr Trp Ala Asn Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr Leu
                85                  90                  95

Asp Asn Gly Phe Tyr Cys Pro Asp Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Ile Val Ser Ser
        115


<210>  344
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  344

Asp Ile Val Met Thr Gln Thr Pro Ser Ser Val Ser Glu Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Tyr Thr Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Lys Ala Ser Ile Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Gly Gly Ser Gly Ala Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Thr Tyr Tyr Gly Ala Ala
                85                  90                  95

Tyr Ile Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 345
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 345

Gln Ser Val Glu Glu Thr Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Ala Ala Ser Gly Val Ser Leu Ser Gly Tyr Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Leu Asp Ala Thr Gly Ser Thr Tyr Tyr Ala Ser Trp Val Lys
50 55 60

Gly Arg Phe Ile Ile Ser Arg Pro Ser Thr Thr Val Asp Leu Gln Ile
65 70 75 80

Thr Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
85 90 95

Ser Tyr Asp Gly Val Gly Tyr Asn Trp Gly Leu Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 346
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 346

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Tyr Asn Gly
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Thr Leu Thr Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Asn Tyr Gly Ser Gly Ser
                85                  90                  95

Arg Ser Asn Tyr Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 347
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 347

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Asn Asn Asn Ala
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Ser Thr Ala Asp Thr Thr Thr Tyr Ala Ser Trp Thr Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Ala
                85                  90                  95

Tyr Phe Ser Tyr Gly Tyr Phe Asn Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
```

Thr Val Ser Ser
        115

<210> 348
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 348

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1   5   10   15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Asn Ala
            20   25   30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35   40   45

Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65   70   75   80

Ala Asp Ala Thr Thr Tyr Phe Cys Gln Ser Tyr Val Tyr Ser Asp Gly
                85   90   95

Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105

<210> 349
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 349

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1   5   10   15

```
Ser Leu Thr Leu Thr Cys Thr Ala Thr Gly Ile Asp Phe Ser Thr Asn
            20                  25                  30

Tyr Arg Ser Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Asp Thr Asp Asp Ser Asp Ser Thr Tyr Tyr Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Thr Arg Ala Tyr Thr Thr Ser Asp Tyr Ala Trp Ser Phe Tyr Leu
            100                 105                 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 350
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 350

```
Asp Leu Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Thr Ser Gln Ser Ile Ser Lys Phe
            20                  25                  30

Leu Asn Trp Tyr Gln Gln Thr Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Arg Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Glu Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Gly Gly Thr Ser
                85                  90                  95

Gly Ser Val Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 351
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 351

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Glu Gly
1               5                  10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser
            20                  25                  30

Phe Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Val Ala Cys Ile Tyr Ala Glu Asp Ser Asp Tyr Thr Tyr Tyr Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Ala Arg Glu Ile Leu Tyr Pro Thr Asn Thr Asp Ser Phe Asp Leu
            100                 105                 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 352
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 352

Ala Phe Glu Leu Thr Gln Thr Pro Ser Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Phe Ser Ser Arg
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Ala Tyr Tyr Cys Gln Ala Tyr Val Gly Ile Ser Ser
85 90 95

Gly Gly Tyr Ala Phe Gly Gly Gly Thr Glu Val Val Val Gly
100 105 110

<210> 353
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 353

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser Tyr
20 25 30

Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Cys Ile Ser Ala Pro Gly Ser Gly Ser Thr Phe Asp Ala Ser Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

```
Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Phe Tyr Ala Gly Gly Ser Gly Asp Tyr Phe Asp Leu Trp Gly
            100                 105                 110

Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 354
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 354

```
Gln Ile Val Met Thr Gln Thr Pro Ser Ser Thr Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Ser Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Ser Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Val Leu Ile
        35                  40                  45

Tyr Thr Thr Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Val Tyr Gly Tyr Ser Ser
                85                  90                  95

Asp Asp Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 355
<211> 121
<212> PRT
<213> Artificial Sequence

<220>

<223> VH

<400> 355

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Asp Tyr Ala
            20                  25                  30

Met Ala Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Phe Ile Asn Ile Gly Gly Ile Ser Ser Val Ala Asn Trp Ala Ile Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Ser Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Gly
                85                  90                  95

Tyr Thr Thr Gly Gly Gly Gly Pro Tyr Tyr Gly Met Asp Leu Trp Gly
            100                 105                 110

Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 356
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 356

```
Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Met Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile His Ser Trp
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg Leu Ile
        35                  40                  45
```

```
Tyr Thr Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Arg Asn Ser Tyr Ser Asp Phe
                85                  90                  95

Asn Asn Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 357
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 357

```
Gln Ser Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly Ser
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser Asp
            20                  25                  30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Ala Cys Met Tyr Thr Gly Ser Val Glu His Thr Tyr Tyr Ala Asn Trp
    50                  55                  60

Ala Glu Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65                  70                  75                  80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Ser Pro Thr Gly Tyr Pro Asp Tyr Gly Tyr Gly Gly Phe Ser
            100                 105                 110

Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 358
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 358

Ala Leu Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Ile Tyr Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

His Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Tyr Tyr Ser Gly Gly
85 90 95

Pro Asp Met Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 359
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 359

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Tyr Leu Ser Ser His Tyr
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Tyr Ala Thr Gly Ile Ala Ser Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Ser Leu Lys Met Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr Asp
85 90 95

Ser Gln Asp Tyr Tyr Gly Tyr Gly Asn Leu Trp Gly Pro Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 360
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 360

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Tyr Asn Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Gln Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Gly Val Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Val His Asp
85 90 95

Val Tyr Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 361
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 361

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Gly Tyr His
20 25 30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Gln Tyr Ile Gly
35 40 45

Ile Ile Gly Ser Asn Gly Val Thr Tyr Tyr Ala Ser Trp Ala Lys Ser
50 55 60

Arg Ser Thr Ile Thr Arg Asn Thr Asn Glu Asn Thr Val Thr Leu Lys
65 70 75 80

Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
85 90 95

Ser Ser Gly Trp Gly Ala Arg Phe Asn Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 362
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 362

Ala Gln Val Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asp
            20                  25                  30

Asn Glu Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Lys Ala Ser Thr Leu Thr Ser Gly Val Pro Leu Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Gly Ser Thr
                85                  90                  95

Pro Ser Asp Ser Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  363
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  363

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Thr Ile Ser Ser Tyr His
            20                  25                  30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Gln Tyr Ile Gly
        35                  40                  45

Ile Ile Gly Ser Asn Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Ser
    50                  55                  60

Arg Ser Thr Ile Thr Arg Asn Thr Asn Glu Asn Thr Val Thr Leu Lys
65                  70                  75                  80

Met Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95
```

Ser Ser Gly Trp Gly Ala Arg Phe Asn Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 364
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 364

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asp
20 25 30

Asn Glu Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Lys Ala Ser Thr Leu Thr Ser Gly Val Pro Leu Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Gly Ser Thr
85 90 95

Pro Ser Asp Ser Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 365
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 365

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Asn Ala His
            20                  25                  30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Gly Ala Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Thr Asp
                85                  90                  95

Val Gly Tyr Thr Thr Ala Asn Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115


<210>  366
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  366

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Thr Ile Ser Ser Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ala Tyr Asp Thr Thr Ser Gly
                85                  90                  95

Thr Asp Leu Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 367
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 367

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Asp
            20                  25                  30

Tyr Asp Met Cys Trp Val Ser Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Ile Gly Gly Ser Ser Asp Ser Thr Trp Tyr Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Val Thr Gly Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Ala Arg Asn Val Gly Phe Ser Tyr Tyr Asp Leu Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 368
<211> 113
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 368

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Leu Tyr Asn Asn
20 25 30

Lys Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Glu Phe Ser Cys
85 90 95

Ser Ser Gly Asp Cys Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 369
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 369

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

```
Ile Ile Tyr Ser Ser Gly Ser Thr Trp Phe Ala Asn Trp Val Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr Ser
                85                  90                  95

Ala Ala Asp His Gly Asp Lys Phe Lys Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 370
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 370

```
Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Lys Asn Ile Phe Asp Asn
            20                  25                  30

Thr Arg Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Gln
        35                  40                  45

Leu Ile Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Glu Tyr Ser Ser
                85                  90                  95

Asp Ser Asp Thr Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 371
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 371

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Thr Tyr Tyr
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Tyr Thr Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Asn Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Arg
85 90 95

Val Pro Gly Asp Thr Thr Gly Leu Tyr Tyr Phe Asn Leu Trp Gly Pro
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 372
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 372

Ala Leu Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Glu
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asn Ile Tyr Ser Asn
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr His Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ala Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Tyr Asp Ser Ser Ser
                85                  90                  95

Ser Asp Thr Phe Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 373
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 373

```
Gly Phe Ser Leu Ser Arg Tyr Trp
1               5
```

<210> 374
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 374

```
Ile Asp Asn Gly Asp Thr Ala
1               5
```

<210> 375
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 375

Thr Arg Glu Gly Ala Asp His Ser Gly Gln Asp Leu
1 5 10

<210> 376
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 376

Gln Ser Val Ile Ser Asn Asn Asp
1 5

<210> 377
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 377

Arg Ala Ser
1

<210> 378
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 378

Gln Gly Gly Tyr Ala Gly Ile Val Asp Arg Arg Pro
1 5 10

<210> 379
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 379

Gly Phe Ser Phe Ser Ala Thr Tyr Trp
1 5

<210> 380
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 380

Ile Phe Gly Arg Ser Ser Ser Asp Thr
1 5

<210> 381
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 381

Ala Arg Gly Asp Ser Gly His Pro Tyr Tyr Tyr Ser Phe Asn Leu
1 5 10 15

<210> 382
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 382

Gln Ser Ile Gly Gly Tyr
1 5

<210> 383
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 383

Gly Ala Ser
1

<210> 384
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 384

Gln Cys Thr His Gly Thr Arg Ser Asp Trp Ala
1 5 10

<210> 385
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 385

Gly Ile Asp Leu Ser Thr Tyr Ala
1 5

<210> 386
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 386

Ile Tyr Gly Ser Gly Tyr Thr
1 5

<210> 387
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 387

Ala Ser Gly Tyr Gly Ile Ser Ser Gly Asn Phe Leu His Phe Asn Leu
1 5 10 15

<210> 388
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 388

Glu Ser Ile Tyr Phe Asn
1 5

<210> 389
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 389

Arg Ala Ser
1

<210> 390
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 390

Gln Gln Gly Tyr Asp Ser Ser His Ile Asp Asn Ala
1 5 10

<210> 391
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 391

Gly Phe Ser Leu Ser Ser Asn Ala
1 5

<210> 392
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 392

Ile Tyr Thr His Gly Ser Ser
1 5

<210> 393
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 393

Ala Gly Trp Ala Gly Gly Leu Ser Leu
1 5

<210> 394
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 394

Glu Asp Ile Asp Asn Ala
1 5

<210> 395
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 395

Ser Ala Ser
1

<210> 396
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 396

Gln Ser Ala Tyr Gly Gly Thr Tyr Gly Asp Gly
1 5 10

<210> 397
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 397

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 398
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 398

Ile Trp Ser Asp Gly Asn Thr
1 5

<210> 399
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 399

Ala Arg Gly Tyr Thr Gly Phe Phe Leu
1 5

<210> 400
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 400

Gln Ser Ile Gly Ser Ser Tyr
1 5

<210> 401
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 401

Lys Thr Ser
1

<210> 402
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 402

Gln Cys Thr Tyr Tyr Gly Gly Ser Trp Arg Val Ala
1 5 10

<210> 403
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 403

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 404
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 404

Ile Trp Ser Asp Gly Asn Thr
1 5

<210> 405
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 405

Ala Arg Gly Tyr Thr Gly Phe Phe Leu
1 5

<210> 406
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 406

Gln Ser Ile Gly Ser Ser Tyr
1 5

<210> 407
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 407

Lys Thr Ser
1

<210> 408
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 408

Gln Cys Thr Tyr Tyr Gly Ser Ser Trp Arg Val Ala
1 5 10

<210> 409
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 409

Gly Leu Asp Phe Ile Ser Ser Tyr
1 5

<210> 410
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 410

Ile Ala Pro Gly Gly Gly Asn Thr
1 5

<210> 411
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 411

Ala Arg Thr Tyr Pro Ser Ile Trp Tyr Phe Gly Leu
1 5 10

<210> 412
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 412

Gln Ser Ile Gly Ser Asn
1 5

<210> 413
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 413

Gly Ala Ser
1

<210> 414
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 414

Gln Ser Phe Tyr Ala Ala Ser Ser Ala
1 5

<210> 415
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 415

Gly Ser Asp Ile Ser Thr Tyr His
1 5

<210> 416
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 416

Ile Asn Thr Gly Gly Thr Thr
1 5

<210> 417
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 417

Ala Arg Tyr Asp Ala Gly His Ala Phe Phe Asp Leu
1 5 10

<210> 418
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 418

Gln Ser Ile Gly Ser Ser Tyr
1 5

<210> 419
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 419

Ser Ala Ser
1

<210> 420
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 420

Gln Gly Tyr Asp Gly Asp Thr Thr Thr Ala Phe Phe Ala
1 5 10

<210> 421
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 421

Gly Phe Ser Phe Ser Ser Arg Tyr Tyr
1 5

<210> 422
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 422

Ile Asp Thr Ser Ser Gly Ser Thr
1 5

<210> 423
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 423

Ala Arg Asp Leu Tyr His Glu Asn Ser Asp Gly Asp Trp
1 5 10

<210> 424
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 424

Glu Ser Ile Asn Asn Tyr
1 5

<210> 425
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 425

Lys Ala Ser
1

<210> 426
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 426

Gln Ser Tyr Tyr Gly Ala Ser Gly Ser Gly Ser Asn Val
1 5 10

<210> 427
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 427

Gly Ile Asp Leu Asn Asn Tyr Val
1 5

<210> 428
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 428

Ile Asn Thr Ala Gly Ser Thr
1 5

<210> 429
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 429

Ala Arg Asp Ser Ser Tyr Tyr Ile Gly Tyr Tyr Phe Asn Leu
1 5 10

<210> 430
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 430

Gln Ser Ile Gly Ser Asn
1 5

<210> 431
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 431

Asp Ala Ser
1

<210> 432
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 432

Gln Gln Gly Tyr Ser Ala Thr Thr Asn Val Asp Asn Ala
1 5 10

<210> 433
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 433

Gly Phe Ser Leu Ser Lys Tyr Asp
1 5

<210> 434
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 434

Ile Gly Ala Ser Asp Ser Thr
1 5

<210> 435
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 435

Ala Arg Glu Tyr Pro Asp Ala Arg Gly Tyr Tyr Tyr Asn Leu
1 5 10

<210> 436
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 436

Gln Ser Ile Ser Asp Leu
1 5

<210> 437
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 437

Asp Ala Ser
1

<210> 438
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 438

Gln Gln Gly Tyr Ser Ile Thr Asn Val Asp Asn Val
1 5 10

<210> 439
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 439

Gly Phe Ser Leu Ser Asn Tyr Asp
1 5

<210> 440
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 440

Ile Trp Ser Asp Gly Asn Thr
1 5

<210> 441
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 441

Ala Arg Gly Tyr Thr Gly Phe Phe Leu
1 5

<210> 442
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 442

Gln Ser Ile Gly Ser Ser Tyr
1 5

<210> 443
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 443

Lys Thr Ser
1

<210> 444
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 444

Gln Cys Thr Tyr Tyr Gly Gly Ser Trp Arg Val Ala
1 5 10

<210> 445
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 445

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 446
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 446

Ile Tyr Thr Gly Gly Ser Ala
1 5

<210> 447
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 447

Ala Arg Asp Ala Gly Asp Arg Ile Tyr Thr Thr Phe Asn Leu
1 5 10

<210> 448
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 448

Gln Ser Ile Gly Ser Asp
1 5

<210> 449
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 449

Arg Ala Ser
1

<210> 450
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 450

Leu Gly Ile Asp Ser Tyr Ser Ser Asp Asp Gly Ile Ala
1 5 10

<210> 451
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 451

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 452
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 452

Ile Ser Thr Tyr Gly Asp Thr
1 5

<210> 453
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 453

Ala Arg Gly Ser Ser Asp Thr Tyr Tyr Thr Tyr Phe Asn Leu
1 5 10

<210> 454
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 454

Gln Lys Ile Tyr Asn Asn
1 5

<210> 455
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 455

Ser Ala Ser
1

<210> 456
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 456

Gln Ser Tyr Gly Val Ser Ala Asn Thr Ile Ser Tyr Gly Leu Pro
1 5 10 15

<210> 457
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 457

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 458
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 458

Leu Tyr Arg Asn Asp Ala Ala
1 5

<210> 459
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 459

Val Arg Gly Tyr Val Asn Asp Gly Tyr Tyr Asn Leu
1 5 10

<210> 460
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 460

Glu Ser Ile Gly Tyr Arg
1 5

<210> 461
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 461

Asp Ala Ser
1

<210> 462
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 462

Gln Gln Asp Tyr Ser Tyr Ser Ile Ile Asp Asn Ser
1 5 10

<210> 463
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 463

Gly Ser Asp Ile Ser Asn Tyr Gly
1 5

<210> 464
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 464

Ile Asn Ala Asp Gly Gly Gly Thr
1 5

<210> 465
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 465

Ala Thr Tyr Gly Gly Gly Gly Gly His Asn Leu
1 5 10

<210> 466
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 466

Gln Ser Val Tyr Asp Asn Asn Ala
1 5

<210> 467
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 467

Ser Ala Ser
1

<210> 468
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 468

Ala Ala Tyr Tyr Gly Ser Gly Asp Ile Phe Ala
1 5 10

<210> 469
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 469

Gly Phe Ser Phe Ser Ser Arg Tyr Tyr
1 5

<210> 470
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 470

Ile Ala Pro Asp Val Ser Gly Ser Ala
1 5

<210> 471
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 471

Ala Arg Ser Val Pro Gly Ser Leu Phe Tyr Phe Gln Leu
1 5 10

<210> 472
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 472

Gln Ser Val Tyr Asn Lys Asn Glu
1 5

<210> 473
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 473

Asp Ala Ser
1

<210> 474
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 474

Gln Gly Ser Tyr Tyr Ser Ser Gly Ser Tyr Thr Ala
1 5 10

<210> 475
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 475

Gly Ile Asp Phe Ser Ser Ser Tyr Tyr
1 5

<210> 476
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 476

Ile Ala Thr Gly Gly Gly Asn Thr
1 5

<210> 477
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 477

Ala Arg Thr Tyr Pro Ser Met Trp Tyr Phe Asn Leu
1 5 10

<210> 478
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 478

Gln Ser Ile Gly Phe Asn
1 5

<210> 479
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 479

Gly Val Ser
1

<210> 480
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 480

Gln Ser Phe Tyr Ala Gly Ser Ser Ala
1 5

<210> 481
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 481

Gly Phe Ser Phe Ser Ser Gly Tyr Tyr
1 5

<210> 482
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 482

Ile Phe Ala Gly Ser Gly Gly Gly Ala
1 5

<210> 483
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 483

Ala Arg Pro Leu Ser Gly Tyr Ala Tyr Gly Met Asp Leu
1 5 10

<210> 484
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 484

Gln Thr Ile Ser Asn Tyr
1 5

<210> 485
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 485

Gly Ala Ser
1

<210> 486
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 486

Gln Cys Thr Tyr Asp Gly Ser Ser Asp Val Gly Gly Ala
1 5 10

<210> 487
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 487

Gly Phe Ser Phe Ser Ser Ser Tyr Trp
1 5

<210> 488
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 488

Ile Ile Thr Gly Arg Gly Asn Thr
1 5

<210> 489
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 489

Ala Arg Gly Pro Gly Gly Ala Asp Pro Val Asn Leu
1 5 10

<210> 490
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 490

Gln Ser Ile Tyr Ser Asn
1 5

<210> 491
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 491

Arg Ala Ser
1

<210> 492
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 492

Gln Cys Thr Tyr Asp Gly Ser Ser Tyr Val Pro Asn Ala
1 5 10

<210> 493
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 493

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 494
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 494

Ile Trp Ser Asp Gly Asn Thr
1 5

<210> 495
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 495

Ala Arg Gly Tyr Thr Gly Phe Phe Leu
1 5

<210> 496
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 496

Gln Ser Ile Gly Ser Ser Tyr
1 5

<210> 497
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 497

Lys Thr Ser
1

<210> 498
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 498

Gln Cys Thr Tyr Tyr Gly Gly Ser Trp Arg Val Ala
1 5 10

<210> 499
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 499

Gly Phe Ser Leu Ser Ser Tyr Ser
1 5

<210> 500
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 500

Val Tyr Ala Ser Gly Ser Thr
1 5

<210> 501
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 501

Ala Arg Gly Asp Val Leu Tyr Ala Phe Asp Pro
1 5 10

<210> 502
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 502

Glu Asn Ile Tyr Ser Tyr
1 5

<210> 503
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 503

Tyr Ala Ser
1

<210> 504
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 504

Gln Tyr Thr Tyr Ser Thr Ser Pro Gly Tyr Ile
1 5 10

<210> 505
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 505

Gly Val Ser Phe Ser Asn Asn Tyr Tyr
1 5

<210> 506
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 506

Val Tyr Thr Gly Asp Asp Asp Tyr Thr
1 5

<210> 507
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 507

Ala Arg Glu Ile Leu Tyr Pro Ala Asp Thr Asp Ser Phe Asp Leu
1 5 10 15

<210> 508
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 508

Glu Ser Ile Ser Ser Arg
1 5

<210> 509
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 509

Arg Ala Ser
1

<210> 510
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 510

Gln Ala Tyr Val Gly Ile Ser Ser Gly Gly Tyr Ile
1 5 10

<210> 511
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 511

Gly Ile Asp Leu Ser Arg Tyr Ala
1 5

<210> 512
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 512

Ile Ser Val Gly Gly Gly Thr
1 5

<210> 513
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 513

Ala Arg Ser Pro Tyr Ala Ser Thr Ser Ala Ser Ala Phe Asn Leu
1 5 10 15

<210> 514
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 514

Gln Ser Ile Tyr Ser Tyr
1 5

<210> 515
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 515

Glu Ala Ser
1

<210> 516
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 516

Gln Ser Tyr Ser Asn Thr Asn Thr Asn Thr
1 5 10

<210> 517
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 517

Gly Phe Ser Leu Ser Ser Tyr His
1 5

<210> 518
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 518

Ile Tyr Ala Gly Ser Gly Asn Thr
1 5

<210> 519
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 519

Ala Arg Gln Pro Gly Gly Asp Ala Ser Asp Thr Gln Leu Asp Leu
1 5 10 15

<210> 520
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 520

Gln Ser Val Phe Asp His Asn Gln
1 5

<210> 521
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 521

Arg Ala Ser
1

<210> 522
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 522

Leu Gly Gly Tyr Ser Ser Ser Ser Asp Thr Val
1 5 10

<210> 523
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 523

Gly Phe Ser Leu Ser Arg Tyr Asp
1 5

<210> 524
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 524

Ile Trp Ser Asp Gly Asp Thr
1 5

<210> 525
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 525

Ala Arg Gly Tyr Thr Ala Trp Ser Leu
1 5

<210> 526
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 526

Glu Ser Val Val Gly Asn Asn Ala
1 5

<210> 527
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 527

Gln Ala Ser
1

<210> 528
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 528

Gln Gly Thr Tyr Tyr Ser Ser Gly Trp Tyr Phe Ala
1 5 10

<210> 529
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 529

Gly Ile Asp Leu Ser Arg Tyr Ala
1 5

<210> 530
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 530

Ile Ser Ser Ser Gly Ser Thr
1 5

<210> 531
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 531

Ala Arg Ser Pro Tyr Ala Ser Thr Ser Ala Ser Ala Phe Asn Leu
1 5 10 15

<210> 532
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 532

Gln Ser Ile Ser Ser Trp
1 5

<210> 533
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 533

Glu Ala Ser
1

<210> 534
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 534

Gln Ser Tyr Ser Ser Thr Thr Thr Asn Thr
1 5 10

<210> 535
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 535

Gly Ile Asp Leu Ser Thr Tyr Ala
1 5

<210> 536
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 536

Ile Ser Thr Gly Gly Ser Ala
1 5

<210> 537
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 537

Ala Arg Leu Arg Asp Pro Tyr Ser Tyr Arg Thr Tyr Phe Asn Leu
1 5 10 15

<210> 538
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 538

Leu Ser Ile Ser Ser Ala
1 5

<210> 539
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 539

Asp Ala Ser
1

<210> 540
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 540

Gln Gly Pro Tyr Asp Thr Val Asn Asn Asn Ser
1 5 10

<210> 541
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 541

Gly Met Asp Leu Ser Ser Tyr Ser
1 5

<210> 542
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 542

Ile Gly Ser Ser Gly Gly Thr
1 5

<210> 543
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 543

Ala Arg Met Leu Ala Gly Val Tyr Thr Arg Leu Asp Leu
1 5 10

<210> 544
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 544

Gln Ser Ile Ser Ser Ser Tyr
1 5

<210> 545
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 545

Lys Ala Ser
1

<210> 546
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 546

Ala Gly Asp Phe Ile Ala Ser Ser Gly Asn Ala
1 5 10

<210> 547
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 547

Phe Ser Leu Ser Ser Thr Tyr
1 5

<210> 548
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 548

Ile Tyr Thr Asp Gly Ser Thr
1 5

<210> 549
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 549

Ala Arg Gly Ala Ala Ala Ala Tyr Asp Leu
1 5 10

<210> 550
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 550

Gln Asn Ile Tyr Thr Asn
1 5

<210> 551
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 551

Gly Val Ser
1

<210> 552
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 552

Gln Gln Gly Tyr Ser Ser Thr Asn Val Glu Asn Ala
1 5 10

<210> 553
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 553

Gly Phe Asp Phe Ser Ser Ser Tyr Tyr
1 5

<210> 554
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 554

Ile Asp Thr Ala Asp Gly Tyr Thr
1 5

<210> 555
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 555

Ala Arg Glu Arg Ile Ala Tyr Asn Thr Asp Tyr Phe Asn Leu
1 5 10

<210> 556
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 556

Gln Ser Leu Tyr Asn Tyr Asn Asn
1 5

<210> 557
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 557

Ser Val Ser
1

<210> 558
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 558

Gln Gly Tyr Tyr Ser Gly Ala Val Tyr Thr
1 5 10

<210> 559
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 559

Gly Ile Asp Phe Ser Ser Asn Tyr Tyr
1 5

<210> 560
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 560

Ile Tyr Thr Gly Ser Asp Asp Ala Ala
1 5

<210> 561
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 561

Ala Arg Glu Ile Leu Tyr Pro Thr Asn Thr Asp Ser Phe Asp Leu
1 5 10 15

<210> 562
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 562

Glu Ser Ile Ser Ser Arg
1 5

<210> 563
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 563

Arg Ala Ala
1

<210> 564
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 564

Gln Ser Tyr Val Gly Ala Ser Ser Gly Gly Tyr Phe
1 5 10

<210> 565
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 565

Ala Leu Ser Phe Tyr Ser Ala Trp
1 5

<210> 566
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 566

Ile Tyr Ala Gly Gly Ser Arg Ser Thr
1 5

<210> 567
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 567

Ala Arg Ser Leu Ser Ala Asp Thr Tyr Trp Asn Leu
1 5 10

<210> 568
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 568

Glu Ser Ile Ser Ser Trp
1 5

<210> 569
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 569

Arg Ala Ser
1

<210> 570
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 570

Gln Asn Asn Gly Gly Gly Thr Ser Gly Tyr Thr
1 5 10

<210> 571
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 571

Gly Phe Ser Leu Ser Asn Tyr Ser
1 5

<210> 572
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 572

Ile Asn Met Tyr Gly Ser Thr
1 5

<210> 573
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 573

Ala Arg Asp Ala Gly Gly Ser Thr Val Pro Trp Tyr Phe Asp Leu
1 5 10 15

<210> 574
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 574

Glu Ser Ile Ser Asp Tyr
1 5

<210> 575
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 575

Asp Ala Ser
1

<210> 576
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 576

Gln Gln Gly Tyr Ala Asp Ser Asn Val Asp Asn Val
1 5 10

<210> 577
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 577

Gly Phe Ser Phe Ser Ser Ser Tyr Tyr
1 5

<210> 578
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 578

Ile Asp Thr Val Asp Asn Tyr Thr
1 5

<210> 579
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 579

Ala Arg Glu Arg Ile Ala Tyr Asn Thr Asp Tyr Phe Asn Leu
1 5 10

<210> 580
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 580

Gln Ser Leu Tyr Asn Tyr Asn Asn
1 5

<210> 581
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 581

Ser Ala Ser
1

<210> 582
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 582

Gln Gly Tyr Tyr Ser Gly Ala Val Tyr Thr
1 5 10

<210> 583
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 583

Gly Phe Ser Leu Ser Ser Tyr Val
1 5

<210> 584
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 584

Ile Asp Tyr Gly Gly Thr Pro
1 5

<210> 585
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 585

Ala Arg Gly Gly Tyr Gly Gly Tyr Ile Leu Val Thr Gly Leu
1 5 10

<210> 586
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 586

Gln Ser Ile Ser Ser Tyr
1 5

<210> 587
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 587

Gly Ala Ser
1

<210> 588
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 588

Gln Thr Tyr Tyr Gly Gly Gly Pro Phe Gly Asn Gly
1 5 10

<210> 589
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 589

Gly Ile Asp Leu Ser Ser Asn Ala
1 5

<210> 590
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 590

Ile Tyr Thr Ser Gly Ser Thr
1 5

<210> 591
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 591

Ala Arg Gly Val Thr Ile Asp Trp Phe Asp Leu
1 5 10

<210> 592
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 592

Pro Ser Val Tyr Ser Asn Tyr
1 5

<210> 593
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 593

Gly Ala Ser
1

<210> 594
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 594

Leu Gly Gly Tyr Gly Asp Ile Asn Asp Thr Thr
1 5 10

<210> 595
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 595

Gly Phe Ser Leu Ser Ser Tyr Val
1   5

<210> 596
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 596

Ile Asp Tyr Gly Gly Thr Ala
1   5

<210> 597
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 597

Ala Arg Gly Gly Tyr Gly Gly Tyr Ile Leu Val Thr Gly Leu
1   5   10

<210> 598
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 598

Gln Thr Ile Ile Ser Tyr
1   5

<210> 599
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 599

Gly Ala Ser
1

<210> 600
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 600

Gln Thr Tyr Tyr Gly Gly Gly Pro Phe Gly Asn Gly
1 5 10

<210> 601
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 601

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 602
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 602

Ile Tyr Thr Ser Asn Arg Thr
1 5

<210> 603
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 603

Gly Arg Tyr Gly Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu
1 5 10 15

<210> 604
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 604

Gln Ser Gly Asp Asn Tyr
1 5

<210> 605
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 605

Gln Ala Ser
1

<210> 606
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 606

Gln Asn Tyr Cys Ala Gly Ser Gly Val Cys Leu Gly Ile Ala
1 5 10

<210> 607
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 607

Gly Ile Asp Phe Ser Ser Ser Ser
1 5

<210> 608
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 608

Ile Asp Thr Gly Ser Ser Gly Arg Thr
1 5

<210> 609
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 609

Thr Arg Tyr Gly Asp Tyr Ala Gly Tyr Gly Tyr Asp Ser Phe Asp Pro
1 5 10 15

<210> 610
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 610

Gln Asn Ile Asn Asn Trp
1 5

<210> 611
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 611

Tyr Ala Ser
1

<210> 612
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 612

Gln Gln Thr Phe Asp Cys Thr Asp Val Glu Asn Val
1 5 10

<210> 613
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 613

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 614
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 614

Ile Asn Thr Asp Thr Thr Thr
1 5

<210> 615
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 615

Ala Arg Gly Asn Asp Pro Ile Tyr Ile Asp Leu
1 5 10

<210> 616
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 616

Lys Ser Val Ile Asn Asn Asn Trp
1 5

<210> 617
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 617

Tyr Ala Ser
1

<210> 618
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 618

Ala Gly Ala Tyr Ser Pro Asp Ser Glu Asn Ala
1 5 10

<210> 619
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 619

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 620
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 620

Ile Thr Thr Asn Ser Asp Thr
1 5

<210> 621
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 621

Ala Arg Gly Tyr Thr Thr Phe Thr Leu
1 5

<210> 622
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 622

Gln Asn Ile Tyr Ser Asn
1 5

<210> 623
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 623

Gly Ala Ser
1

<210> 624
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 624

Gln Cys Thr Asp Tyr Asp Ser Asn Tyr Val Val Asp
1 5 10

<210> 625
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 625

Gly Phe Asp Leu Ser Ser Arg Tyr Trp
1 5

<210> 626
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 626

Ile Lys Thr Gly Phe Ser Asn Thr
1 5

<210> 627
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 627

Ala Arg Ile Ala Ala Ala Ala Ser Ala Ser Asp Asp Phe Arg Leu
1 5 10 15

<210> 628
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 628

Lys Ser Val Tyr Asn Lys Trp
1 5

<210> 629
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 629

Asp Ala Ser
1

<210> 630
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 630

Leu Gly His Tyr Asp Ser Ser Ser Asp Arg Phe Val
1 5 10

<210> 631
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 631

Arg Phe Ser Leu Ser Thr Ser Thr
1 5

<210> 632
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 632

Ile Asn Gly Gly Gly Ser Ala
1 5

<210> 633
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 633

Ala Arg Ser Tyr Asp Ser Tyr Asp Asp Ile Tyr Gly Thr Ser Arg Leu
1 5 10 15

Tyr Ala Phe Asp Pro
20

<210> 634
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 634

Glu Ser Ile Tyr Ala Asn
1 5

<210> 635
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 635

Arg Ala Ser
1

<210> 636
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 636

Gln Gln Gly Tyr Ser Ser Ser Asn Val Asp Asn Ser
1 5 10

<210> 637
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 637

Gly Val Asp Leu Ser Arg Tyr Ala
1 5

<210> 638
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 638

Ile Trp Tyr Ser Gly Thr Thr
1 5

<210> 639
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 639

Ala Arg Asp Pro Leu Tyr Val Gly Gly Asn Ser Gly Ser Asp Leu
1 5 10 15

<210> 640
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 640

Gln Ser Ile Gly Ser Ser
1 5

<210> 641
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 641

Tyr Ala Ser
1

<210> 642
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 642

Gln Ser Asn Tyr Gly Ala Ala Ser Ser Ser Tyr Gly Ala
1 5 10

<210> 643
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 643

Gly Ile Asp Phe Ser Ser Ser Phe Tyr
1 5

<210> 644
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 644

Thr Tyr Asn Arg Asp Gly Ser Thr
1 5

<210> 645
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 645

Ala Arg Asp Asp Gly Tyr Pro Gly Ser Gly Tyr Val Phe Asn Leu
1 5 10 15

<210> 646
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 646

Gln Ser Val Ser Ser Tyr
1 5

<210> 647
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 647

Gly Ala Ser
1

<210> 648
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 648

Gln Gly Gly Tyr Tyr Ser Ser Gly Ala Asp Asn Asn Ser
1   5   10

<210> 649
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 649

Gly Leu Ser Leu Ser Ser Tyr Asp
1   5

<210> 650
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 650

Ile Trp Ser Gly Gly Thr Thr
1   5

<210> 651
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 651

Ala Arg Gly Tyr Val Glu Phe Asp Leu
1   5

<210> 652
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 652

Gln Ser Leu Tyr Ser Asn Asn Tyr
1   5

<210> 653
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 653

Pro Ala Ser
1

<210> 654
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 654

Gln Gly Thr Phe Tyr Asp Ser Gly Trp Leu Ser Thr
1 5 10

<210> 655
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 655

Gly Phe Ser Phe Asn Asn Asn Tyr Val
1 5

<210> 656
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 656

Ile Tyr Val Val Ser Gly Ser Thr
1 5

<210> 657
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 657

Ala Arg Asp Gln Leu Tyr Asn Ser Gly Tyr Asp Phe Asp Leu
1 5 10

<210> 658
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 658

Gln Ser Val Tyr Asn Asn Asn Glu
1 5

<210> 659
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 659

Gln Ala Ser
1

<210> 660
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 660

Gln Gly Thr Tyr Tyr Arg Ser Gly Leu Asp Asn Gly
1 5 10

<210> 661
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 661

Gly Ile Asp Phe Ser Ser Ser Tyr Tyr
1 5

<210> 662
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 662

Thr Tyr Asn Arg Asp Gly Ser Thr
1 5

<210> 663
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 663

Ala Arg Asp Asp Gly Tyr Pro Gly Ser Gly Tyr Val Leu Asn Leu
1 5 10 15

<210> 664
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 664

Gln Ser Val Ser Asn Tyr
1 5

<210> 665
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 665

Gly Ala Ser
1

<210> 666
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 666

Gln Gly Gly Tyr Tyr Ser Ser Asn Thr Asp Asn Asn Ser
1 5 10

<210> 667
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 667

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 668
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 668

Ile Ser Thr Ala Gly Asn Thr
1 5

<210> 669
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 669

Ala Arg Asp Gly Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu
1 5 10

<210> 670
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 670

Gln Ser Ile Asp Arg Phe
1 5

<210> 671
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 671

Asp Ala Ser
1

<210> 672
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 672

Gln Gln Gly Tyr Tyr Ile Ser Asp Ile His Asn Val
1 5 10

<210> 673
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 673

Gly Phe Ser Leu Ser Ser Tyr Trp
1 5

<210> 674
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 674

Ile Tyr Ala Gly Ser Gly Ser Ala
1 5

<210> 675
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 675

Gly Arg Gly Asn Tyr Asp Gly Tyr Ile Asn Val Tyr Asp Leu
1 5 10

<210> 676
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 676

Gln Ser Ile Gly Ser Tyr
1 5

<210> 677
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 677

Ala Ala Ala
1

<210> 678
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 678

Gln Asn Asn Asn Gly Ala Tyr Gly Ser Ala Tyr Val Gly Ala
1 5 10

<210> 679
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 679

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 680
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 680

Ile Tyr Val Gly Ser Thr Thr Thr
1 5

<210> 681
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 681

Ala Arg Ala Tyr Asp Ser Gly Tyr Ile Gly Asn Ser Phe Tyr Ile Phe
1 5 10 15

His Pro

<210> 682
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 682

Gln Thr Ile Ser Ser Arg
1 5

<210> 683
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 683

Ser Ala Ser
1

<210> 684
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 684

Ala Gly Tyr Gly Gly Leu Gly Ile Thr Ala
1 5 10

<210> 685
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 685

Gly Phe Ser Leu Ser Ser Asn Ala
1 5

<210> 686
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 686

Ile Asn Thr Gly Gly Ser Thr
1 5

<210> 687
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 687

Ala Arg Asp Val Gly Asp Ser Arg Gly Tyr Tyr Trp Gly Leu
1 5 10

<210> 688
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 688

Glu Asp Ile Tyr Ser Leu
1 5

<210> 689
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 689

Asp Ala Ser
1

<210> 690
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 690

Gln Gln Gly Tyr Thr Thr Tyr Thr Thr Val Asp Asn Ile
1 5 10

<210> 691
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 691

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 692
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 692

Ile Tyr Thr Ser Asn Arg Thr
1 5

<210> 693
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 693

Gly Arg Tyr Gly Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu
1 5 10 15

<210> 694
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 694

Gln Ser Gly Asp Asp Tyr
1 5

<210> 695
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 695

Ala Ala Ser
1

<210> 696
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 696

Gln Asn Tyr Cys Ala Gly Ser Gly Val Cys Leu Gly Val Ala
1 5 10

<210> 697
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 697

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 698
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 698

Leu Tyr Arg Asn Asp Ala Ala
1 5

<210> 699
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 699

Val Arg Gly Tyr Val Asn Asp Gly Tyr Tyr Asn Leu
1 5 10

<210> 700
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 700

Glu Ser Ile Gly Tyr Arg
1 5

<210> 701
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 701

Asp Ala Ser
1

<210> 702
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 702

Gln Gln Asp Tyr Ser Tyr Ser Ile Thr Asp Asn Cys
1   5   10

<210> 703
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 703

Gly Phe Ser Phe Ser Ser Gly Tyr Asp
1   5

<210> 704
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 704

Ile Tyr Ala Gly Ser Asn Asn Asn Thr
1   5

<210> 705
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 705

Ala Arg Ala Ala Gly Gly Tyr Ala Asp Tyr Ala Tyr Val Met Gly Asp
1   5   10   15

Tyr Phe Asn Phe
            20

<210> 706
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 706

Glu Asp Ile Tyr Ser Ile
1 5

<210> 707
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 707

Ser Ala Ser
1

<210> 708
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 708

Gln Gln Gly Tyr Ser Ser Ser Asn Val Asp Asn Val
1 5 10

<210> 709
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 709

Gly Phe Asp Phe Ser Ser Asn Tyr Tyr
1 5

<210> 710
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 710

Asp Ser Gly Ser Ser Gly Ser Thr
1 5

<210> 711
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 711

Val Arg Asp Asp Val Gly Ser Ser Tyr Glu Tyr Tyr Phe Ser Leu
1 5 10 15

<210> 712
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 712

Gln Ser Ile Gly Ser Phe
1 5

<210> 713
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 713

Gln Ala Ser
1

<210> 714
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 714

Gln Thr Tyr Phe Gly Ser Asp Ser Tyr Val
1 5 10

<210> 715
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 715

Gly Phe Ser Phe Ser Ser Gly Gly Trp
1 5

<210> 716
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 716

Ile Tyr Val Gly Ser Ser Gly Thr Thr
1 5

<210> 717
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 717

Ala Arg Gly Ala Val Tyr Gly Gly Gly Ser Tyr Asp Asn Phe His Leu
1 5 10 15

<210> 718
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 718

Gln Ser Ile Gly Ser Tyr
1 5

<210> 719
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 719

Ala Ala Ser
1

<210> 720
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 720

Gln Gln Gly Tyr Asn Ile Ser Asn Leu Asp Asn Thr
1 5 10

<210> 721
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 721

Gly Phe Ser Phe Ser Arg Asn Asn Tyr
1 5

<210> 722
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 722

Ile His Asp Gly Asn Ser Val Gly Ile
1   5

<210> 723
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 723

Ala Arg Met Ser Tyr Thr Asn Asp Trp Asp Pro Ile
1   5   10

<210> 724
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 724

Glu Asn Ile Tyr Ser Leu
1   5

<210> 725
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 725

Leu Ala Ser
1

<210> 726
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 726

Gln Gly Tyr Tyr Tyr Ser Ser Ser Thr Ser Tyr Glu Asn Ala
1   5   10

<210> 727
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 727

Gly Phe Ser Leu Ser Asp Tyr Asn
1 5

<210> 728
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 728

Ile Ser Leu Gly Gly Thr Thr
1 5

<210> 729
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 729

Ala Arg Asp Pro Ala Gly Gly Asn Trp Ala Glu Leu Asp Leu
1 5 10

<210> 730
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 730

Gln Ser Ile Ser Ser Trp
1 5

<210> 731
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 731

Asp Ala Ser
1

<210> 732
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 732

Gln Gln Gly Ser Thr Ile Ser Asn Val Asp Asn Ala
1 5 10

<210> 733
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 733

Gly Leu Asp Phe Ser Ser Ser Tyr Trp
1 5

<210> 734
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 734

Ile His Ala Gly Ser Ser Gly Thr Thr
1 5

<210> 735
<211> 16

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 735

Ala Arg Gly Ala Val Tyr Gly Gly Gly Ser Tyr Asp Asn Phe Asn Leu
1 5 10 15

<210> 736
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 736

Gln Ser Ile Gly Thr Tyr
1 5

<210> 737
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 737

Ala Ala Ser
1

<210> 738
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 738

Gln Gln Gly Tyr Ser Ala Asp Asn Val Ala Asn Ser
1 5 10

<210> 739
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 739

Gly Phe Ser Leu Ser Asn Tyr Ser
1 5

<210> 740
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 740

Ile Asn Thr Tyr Gly Ser Ala
1 5

<210> 741
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 741

Ala Arg Asp Ala Gly Gly Ser Thr Val Pro Trp Phe Phe Asp Val
1 5 10 15

<210> 742
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 742

Gln Thr Ile Ser Asn Tyr
1 5

<210> 743
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 743

Asp Ala Ser
1

<210> 744
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 744

Gln Gln Gly Tyr Ala Asp Ser Asn Val Asp Asn Val
1 5 10

<210> 745
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 745

Gly Phe Ser Phe Ser Asp Arg His Tyr
1 5

<210> 746
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 746

Ile Tyr Thr Gly Lys Asp Ser Ile
1 5

<210> 747
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 747

Ala Arg Asp Leu Leu Tyr Gly Ser Ser Ser Gly Tyr Leu His Thr
1 5 10 15

<210> 748
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 748

His Asn Ile Tyr Ser Asn
1 5

<210> 749
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 749

Tyr Ala Ser
1

<210> 750
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 750

Gln Ser Ala Tyr Tyr Gly Ser Ile Asp Ile Thr
1 5 10

<210> 751
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 751

Gly Phe Ser Phe Ser Ser Asn Ala
1 5

<210> 752
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 752

Ile Tyr Val Asp Ser Ile Gly Ser Thr
1 5

<210> 753
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 753

Ala Arg Gly Asp Asn Ile Ala Tyr Phe Met Leu
1 5 10

<210> 754
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 754

Glu Ser Ile Thr Ser Phe
1 5

<210> 755
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 755

Lys Ile Ser
1

<210> 756
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 756

Gln Gly Tyr Tyr Tyr Tyr Ser Asn Val Val Tyr Ala Ser Asn Gly
1 5 10 15

<210> 757
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 757

Gly Phe Thr Ile Ser Ser Tyr Glu
1 5

<210> 758
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 758

Ile Ala Ser Gly Gly Ser Thr
1 5

<210> 759
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 759

Ala Arg Gly Tyr Val Glu Phe Lys Leu
1 5

<210> 760
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 760

Gln Ser Ile Gly Ser Tyr
1 5

<210> 761
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 761

Arg Ala Ser
1

<210> 762
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 762

Gln Gly Tyr His Ser Thr Ser Gly Tyr Val Ala
1 5 10

<210> 763
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 763

Gly Phe Ser Phe Ser Ser Ser Tyr Tyr
1 5

<210> 764
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 764

Ile Asp Thr Ala Asp Ala Tyr Thr
1 5

<210> 765
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 765

Ala Arg Glu Arg Ile Ala Tyr Asn Thr Asp Tyr Phe Asn Leu
1 5 10

<210> 766
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 766

Gln Ser Leu Tyr Asn Tyr Asn Asn
1 5

<210> 767
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 767

Ser Ala Ser
1

<210> 768
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 768

Gln Gly Tyr Tyr Ser Gly Ala Val Tyr Thr
1   5   10

<210> 769
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 769

Gly Phe Ser Leu Ser Ser Tyr Asp
1   5

<210> 770
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 770

Ile Trp Ser Asp Gly Asp Thr
1   5

<210> 771
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 771

Ala Arg Gly Tyr Thr Asn Tyr Asp Leu
1   5

<210> 772
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 772

Gln Ser Leu Tyr Ser Asp Pro Tyr
1 5

<210> 773
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 773

Gln Ala Ser
1

<210> 774
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 774

Gln Gly Thr Tyr Tyr Ser Asp Gly Trp Tyr Ser Asp
1 5 10

<210> 775
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 775

Gly Phe Thr Leu Ser Ser Phe Tyr
1 5

<210> 776
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 776

Ile His Gly His Gly Asn Thr
1 5

<210> 777
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 777

Ala Arg Gly Gly His Pro Asn Met Asp Leu
1 5 10

<210> 778
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 778

Gln Asn Ile Asn Asn Tyr
1 5

<210> 779
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 779

Tyr Ala Ser
1

<210> 780
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 780

Gln Cys Ser Tyr Tyr Asp Ala Ser Ile Phe Gly Ala
1   5   10

<210> 781
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 781

Gly Phe Ser Phe Ser Ser Ser Tyr Tyr
1   5

<210> 782
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 782

Ile Asp Thr Val Asp Asn Tyr Thr
1   5

<210> 783
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 783

Ala Arg Glu Arg Ile Ala Tyr Asn Thr Asp Tyr Phe Asn Leu
1   5   10

<210> 784
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 784

Gln Ser Leu Tyr Asn Tyr Asn Asn
1   5

<210> 785
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 785

Ser Val Ser
1

<210> 786
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 786

Gln Gly Tyr Tyr Ser Gly Ala Val Tyr Thr
1 5 10

<210> 787
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 787

Gly Phe Ser Leu Asn Tyr Tyr Ser
1 5

<210> 788
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 788

Ile Asn Thr Gly Gly Gly Thr
1 5

<210> 789
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 789

Ala Arg Ser Asp Gly Thr Gly Ile Thr Tyr Tyr Asn Leu
1 5 10

<210> 790
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 790

Glu Thr Ile Tyr Ser Asn
1 5

<210> 791
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 791

Arg Ala Ser
1

<210> 792
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 792

Gln Gly Tyr Tyr Asn Thr Gly Ile Thr Gly
1 5 10

<210> 793
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 793

Gly Phe Ser Leu Ser Thr Tyr Ala
1 5

<210> 794
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 794

Ile Asn Thr Asp Ser Gly Asp Thr
1 5

<210> 795
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 795

Ala Arg Asn Pro Gly Asp Asp Val Asn Leu
1 5 10

<210> 796
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 796

Gln Ser Val Tyr Asn Asn Asn Asp
1 5

<210> 797
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 797

Arg Thr Ser
1

<210> 798
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 798

Gln Gly Tyr Tyr Ser Gly Val Ile Tyr Val
1   5   10

<210> 799
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 799

Gly Ile Asp Leu Ser Ser Tyr Ser
1   5

<210> 800
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 800

Ile Asn Thr Gly Gly Arg Gly
1   5

<210> 801
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 801

Ala Arg Asp Ala Gly Ser Ser Arg Gly Tyr Tyr Arg Asp Leu
1 5 10

<210> 802
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 802

Glu Asp Ile Tyr Ser Leu
1 5

<210> 803
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 803

Asp Ala Ser
1

<210> 804
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 804

Gln Gln Gly Tyr Thr Thr Ser Thr Thr Val Asp Asn Ile
1 5 10

<210> 805
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 805

Gly Ile Asp Leu Ser Arg His Ala
1 5

<210> 806
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 806

Ile Tyr Ala Ser Gly Ser Thr
1 5

<210> 807
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 807

Ala Arg Gly Ile Thr Ile Glu Trp Phe Asp Leu
1 5 10

<210> 808
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 808

Pro Ser Val Tyr Ser Asn Tyr
1 5

<210> 809
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 809

Gly Ala Ala
1

<210> 810
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 810

Leu Gly Gly Tyr Ser Asp Thr Ala Asp Thr Ile
1 5 10

<210> 811
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 811

Gly Phe Ser Leu Asn Asn Tyr Asp
1 5

<210> 812
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 812

Ile Asp Thr Gly Gly Ser Ala
1 5

<210> 813
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 813

Ala Arg Gly Tyr Thr His Gly Tyr Leu
1 5

<210> 814
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 814

Gln Asn Val Tyr Asn Asn
1 5

<210> 815
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 815

Ser Ala Ser
1

<210> 816
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 816

Gln Ser Ala Asp Trp Glu Ser Ser Asn Phe Phe Trp Ala
1 5 10

<210> 817
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 817

Gly Phe Ser Leu Ser Thr Tyr Ala
1 5

<210> 818
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 818

Ile Thr Thr Gly Gly Ser Thr
1 5

<210> 819
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 819

Ala Arg Gly Gly Asp Thr Gly Tyr Gly Phe Ser Tyr Phe Asp Leu
1 5 10 15

<210> 820
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 820

Glu Asn Ile Tyr Ser Ser
1 5

<210> 821
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 821

Asp Ala Ser
1

<210> 822
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 822

Gln Gln Gly Tyr Ser Thr Ser Asn Leu Val Asn Pro
1 5 10

<210> 823
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 823

Gly Phe Ser Phe Ser Ser Asp Tyr Tyr
1 5

<210> 824
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 824

Ile Ser Ala Gly Ser Ser Gly Ser Ile
1 5

<210> 825
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 825

Ala Arg Glu Ala Ser Asp Ser Ile Tyr Tyr Pro Ile Phe Asn Leu
1 5 10 15

<210> 826
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 826

Lys Ser Val Tyr Asn Asn Asn Ala
1 5

<210> 827
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 827

Gly Ala Ser
1

<210> 828
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 828

Ile Gly Gly Tyr Ser Ser Ser Ser Asp Thr Asn Ala
1 5 10

<210> 829
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 829

Gly Phe Ser Leu Ser Asn Tyr Ala
1 5

<210> 830
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 830

Ile Tyr Ala Ser Gly Thr Thr
1 5

<210> 831
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 831

Ala Arg Glu Tyr Asp Ser Tyr Asp Tyr Ala Tyr Gly Ser Ser Ile Tyr
1 5 10 15

Ala Phe Asp Pro
20

<210> 832
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 832

Glu Ser Ile Tyr Ser Asn
1 5

<210> 833
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 833

Arg Ala Ser
1

<210> 834
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 834

Gln Gln Gly Tyr Ser Ser Ser Asn Val Asp Asn Val
1 5 10

<210> 835
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 835

Gly Phe Thr Ile Ser Ser His His
1 5

<210> 836
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 836

Ile Tyr Pro Ser Gly Thr Thr
1 5

<210> 837
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 837

Val Arg Asp Val Gly Tyr Phe Thr Leu
1 5

<210> 838
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 838

Gln Ser Val Gly Gly Asn Asn Trp
1 5

<210> 839
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 839

Tyr Ala Ser
1

<210> 840
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 840

Gln Gly Tyr Tyr Ser Asp Val Thr Asn Ala
1 5 10

<210> 841
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 841

Arg Phe Ser Leu Ser Thr Ser Thr
1 5

<210> 842
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 842

Ile Asn Gly Gly Gly Ser Ala
1 5

<210> 843
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 843

Ala Arg Ser Tyr Asp Ser Tyr Asp Asp Ile Tyr Gly Thr Ser Arg Leu
1 5 10 15

Tyr Ala Phe Asp Pro
20

<210> 844
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 844

Glu Ser Ile Tyr Ser Asn
1 5

<210> 845
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 845

Arg Ala Ser
1

<210> 846
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 846

Gln Gln Gly Tyr Ser Ser Ser Asp Val Asp Asn Ala
1 5 10

<210> 847
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 847

Gly Ile Asp Leu Ser Ser Tyr Gly
1 5

<210> 848
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 848

Ile Ser Thr Ile Gly Asp Thr
1 5

<210> 849
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 849

Ala Arg Tyr Thr Asn Ser Gly Tyr Ala Met Met Tyr Tyr Phe Asn Leu
1 5 10 15

<210> 850
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 850

Gln Asn Ile Val Asn Ala
1 5

<210> 851
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 851

Val Ala Ser
1

<210> 852
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 852

Gln Ser Tyr Tyr Tyr Ser Ser Gly Thr Ser Tyr Gly Gln Asn Ala
1 5 10 15

<210> 853
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 853

Gly Ile Asp Phe Ser Ser Ser Tyr Tyr
1 5

<210> 854
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 854

Ile Asp Thr Val Asp Asp Tyr Thr
1   5

<210> 855
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 855

Ala Arg Glu Arg Ile Asp Asn Asn Thr Asp Cys Phe Asp Leu
1   5   10

<210> 856
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 856

Gln Ser Val Val Ser Lys Asn Arg
1   5

<210> 857
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 857

Leu Ala Ser
1

<210> 858
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 858

Gln Gly Tyr Tyr Ser Gly Ala Ile Tyr Ala
1   5   10

<210> 859
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 859

Gly Ile Asp Leu Asn Asn Asn Ala
1 5

<210> 860
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 860

Ile Ser Thr Ala Gly Thr Thr
1 5

<210> 861
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 861

Ala Arg Ala Ala Tyr Phe Ser Tyr Gly Tyr Ile Asn Leu
1 5 10

<210> 862
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 862

Gln Asn Ile Gly Asn Ala
1 5

<210> 863
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 863

Ser Ala Ser
1

<210> 864
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 864

Gln Ser Tyr Val Tyr Ser Asp Gly Asn Val
1 5 10

<210> 865
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 865

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 866
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 866

Val Ser Thr Gly Gly Ser Ala
1 5

<210> 867
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 867

Ala Arg Ile Ile Ser Gly Gly Arg Asp Leu
1 5 10

<210> 868
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 868

Glu Ser Ile Ser Ser Arg
1 5

<210> 869
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 869

Ser Ala Ser
1

<210> 870
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 870

Gln Ser Tyr Tyr Tyr Ser Ser Thr Ala Ser Tyr Ala Ser Asn Asn Ala
1 5 10 15

<210> 871
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 871

Gly Phe Ser Leu Asn Thr Tyr Val
1 5

<210> 872
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 872

Ile Asp Tyr Gly Gly Ala Pro
1 5

<210> 873
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 873

Ala Arg Gly Gly Tyr Gly Gly Tyr Val Leu Val Thr Val Leu
1 5 10

<210> 874
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 874

Gln Asn Ile Tyr Ser Ser
1 5

<210> 875
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 875

Gln Ala Ser
1

<210> 876
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 876

Gln Thr Tyr Tyr Gly Gly Ser Thr Tyr Gly Asn Gly
1 5 10

<210> 877
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 877

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 878
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 878

Ile Ser Thr Ala Gly Asn Thr
1 5

<210> 879
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 879

Ala Arg Asp Gly Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu
1 5 10

<210> 880
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 880

Gln Ser Ile Asp Arg Phe
1 5

<210> 881
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 881

Asp Ala Ser
1

<210> 882
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 882

Gln Gln Gly Tyr Ser Ile Ser Asp Ile Asp Asn Val
1 5 10

<210> 883
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 883

Gly Phe Ser Phe Asn Ser Asn Tyr Trp
1 5

<210> 884
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 884

Ile Met Thr Gly Asp Gly Ser Thr
1 5

<210> 885
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 885

Ala Arg Gly Tyr Asp Gly Ile His Gly Gly Asp Asn Tyr Gly His Val
1 5 10 15

Phe Asn Leu

<210> 886
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 886

Glu Asn Ile Tyr Ser Leu
1 5

<210> 887
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 887

Arg Ala Ser
1

<210> 888
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 888

Gln Ser Tyr Tyr Ile Asn Ser Ser Asn Ser
1 5 10

<210> 889
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 889

Glu Phe Asp Phe Asn Asn Asn Ala
1 5

<210> 890
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 890

Ile Tyr Ile Gly Asn Gly Gly Thr
1 5

<210> 891
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 891

Ala Arg Gly Glu Asn Ile Ala Tyr Phe Ile Leu
1 5 10

<210> 892
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 892

Gln Ser Ile Asn Ser Trp
1 5

<210> 893
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 893

Lys Ala Ser
1

<210> 894
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 894

Gln Gly Tyr Tyr Tyr Tyr Ser Ser Ser Asn Tyr Ala Ser Asn Ala
1 5 10 15

<210> 895
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 895

Gly Phe Ser Leu Ser Ser Tyr Trp
1 5

<210> 896
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 896

Ile Tyr Gly Gly Ser Gly Asp Lys
1 5

<210> 897
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 897

Ala Arg Gly Gly Asp Gly Asp Gly Thr Tyr Ser Ser Leu
1 5 10

<210> 898
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 898

Glu Ser Val Ala Gly Lys Asn
1 5

<210> 899
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 899

Gly Thr Ser
1

<210> 900
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 900

Gln Gly Tyr Tyr Ser Gly Gly Ile Tyr Gly
1 5 10

<210> 901
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 901

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 902
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 902

Ile Thr Tyr Gly Gly Ser Thr
1 5

<210> 903
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 903

Ala Arg Leu Arg Ala Pro Tyr Tyr Tyr Arg Ile Tyr Phe Asn Leu
1 5 10 15

<210> 904
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 904

Gln Asn Ile Ile Ser Ala
1 5

<210> 905
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 905

Asp Ala Ser
1

<210> 906
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 906

Gln Gly Ala Tyr Asp Thr Asn Ile Asn Asp
1 5 10

<210> 907
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 907

Gly Phe Ser Phe Ser Ser Tyr Trp
1 5

<210> 908
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 908

Ile Ala Thr His Ser Gly Thr Asp
1 5

<210> 909
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 909

Ala Arg Asp Pro Tyr Gly Phe Asn Gly Asp Tyr Phe Ser Leu
1 5 10

<210> 910
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 910

Gln Ser Val Tyr Asn Ser Asn Tyr
1 5

<210> 911
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 911

Lys Ala Ser
1

<210> 912
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 912

Ala Gly Tyr Lys Ser Tyr Thr Asn Asp Asp Asn Gly
1 5 10

<210> 913
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 913

Gly Phe Ser Leu Asn Asn Tyr Gly
1 5

<210> 914
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 914

Ile Asn Tyr Gly Gly Ile Ala
1 5

<210> 915
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 915

Ala Arg Gly Tyr Gly Tyr Tyr Ser Ala Gly Asn Leu
1 5 10

<210> 916
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 916

Gln Ser Val Tyr Asp Asn Asn Tyr
1 5

<210> 917
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 917

Asp Ala Ser
1

<210> 918
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 918

Ala Gly Glu Tyr Ser Cys Leu Ser Asp Asp Cys Ile Ala
1 5 10

<210> 919
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 919

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 920
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 920

Ile Gly Ser Gly Val Ser Thr
1 5

<210> 921
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 921

Ala Arg Asp Met Tyr Val Gly Asn Trp Gly Asp Trp Gly Leu
1 5 10

<210> 922
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 922

Gln Ser Ile Ser Asn Asn
1 5

<210> 923
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 923

Ser Val Ser
1

<210> 924
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 924

Gln Gln Asp Tyr Arg Ile Gly Asp Leu Asp Ser Ala
1 5 10

<210> 925
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 925

Gly Phe Ser Leu Ser Arg Tyr Asp
1 5

<210> 926
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 926

Ile Trp Ser Asp Gly Asp Thr
1 5

<210> 927
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 927

Gly Arg Gly Tyr Thr Ala Trp Asn Leu
1 5

<210> 928
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 928

Glu Ser Val Val Gly Asn Asn Ala
1 5

<210> 929
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 929

Gln Ala Ser
1

<210> 930
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 930

Gln Gly Thr Tyr Tyr Ser Ser Gly Trp Tyr Phe Ala
1 5 10

<210> 931
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 931

Gly Phe Ser Leu Asn Ser Tyr Asp
1 5

<210> 932
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 932

Ile Trp Ser Asp Gly Asn Thr
1 5

<210> 933
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 933

Ala Arg Gly Tyr Thr Gly Phe Phe Leu
1   5

<210> 934
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 934

Gln Ser Ile Gly Ser Ser Tyr
1   5

<210> 935
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 935

Glu Ala Ser
1

<210> 936
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 936

Gln Cys Thr Tyr Tyr Gly Gly Ser Trp Arg Val Ala
1   5   10

<210> 937
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 937

Gly Phe Ser Leu Asn Ser Asn Tyr Tyr
1 5

<210> 938
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 938

Ile Asp Ala Gly Ser Gly Ser Thr
1 5

<210> 939
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 939

Ala Arg Asp Asp Ile Gly Thr Ser Tyr Glu Tyr Tyr Phe Gly Leu
1 5 10 15

<210> 940
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 940

Gln Thr Ile Ser Ser Tyr
1 5

<210> 941
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 941

Ser Ala Ser
1

<210> 942
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 942

Gln Thr Tyr Tyr Gly Ser Asp Ser Tyr Val
1 5 10

<210> 943
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 943

Gly Phe Ser Leu Ser Ser Asn Ala
1 5

<210> 944
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 944

Ile Asn Thr Gly Ser Ser Thr
1 5

<210> 945
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 945

Ala Arg Asp Ala Asp Asp Ser Arg Gly Tyr Tyr Trp Gly Leu
1 5 10

<210> 946
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 946

Glu Asp Ile Tyr Ser Leu
1 5

<210> 947
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 947

Asp Ala Ser
1

<210> 948
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 948

Gln Gln Gly Tyr Thr Thr Tyr Thr Thr Val Asp Asn Ile
1 5 10

<210> 949
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 949

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 950
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 950

Ile Tyr Ala Ser Asn Arg Thr
1 5

<210> 951
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 951

Gly Arg Tyr Gly Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu
1 5 10 15

<210> 952
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 952

Gln Ser Gly Asp Asn Tyr
1 5

<210> 953
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 953

Leu Ala Ser
1

<210> 954
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 954

Gln Asn Tyr Cys Ala Gly Ser Gly Val Cys Val Gly Val Ala
1 5 10

<210> 955
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 955

Gly Phe Ser Phe Ser Ser Ser Tyr Trp
1 5

<210> 956
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 956

Ile Tyr Ala Gly Thr Phe Ser Asp Thr
1 5

<210> 957
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 957

Ala Arg Gly His Tyr Tyr Tyr Thr Asp Asn Tyr Thr Ala Asn Gly Tyr
1 5 10 15

Gly Arg Gly Leu Thr Arg Leu Asp Leu
            20   25

<210> 958
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 958

Gln Ser Val Tyr Asn Asn Asn Asn
1   5

<210> 959
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 959

Gly Ala Ser
1

<210> 960
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 960

Ala Gly Gly Tyr Thr Thr Ser Gly Asp Asn Gly
1   5   10

<210> 961
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 961

Gly Phe Ser Leu Ser Ser Tyr Asp
1   5

<210> 962
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 962

Ile Tyr Leu Thr Asp Thr Thr
1 5

<210> 963
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 963

Ala Arg His Leu Asp Thr Ser Ser Gly Gly Phe Tyr Phe Asn Leu
1 5 10 15

<210> 964
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 964

Gln Ser Val Tyr Asn Ser Lys Ile
1 5

<210> 965
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 965

Asp Ala Ser
1

<210> 966
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 966

Gln Gly Glu Phe Thr Cys Thr Ser Ala Asp Cys Ile Ala
1 5 10

<210> 967
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 967

Gly Ile Asp Leu Ser Ser Asn Ala
1 5

<210> 968
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 968

Ile Gly Phe Ala Gly Ile Thr
1 5

<210> 969
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 969

Ala Arg Ala Tyr Gly Asp Ser Asp Gly Leu Tyr Asn Leu
1 5 10

<210> 970
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 970

Glu Ser Val Tyr Asn Asn Asn Trp
1 5

<210> 971
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 971

Leu Ala Ser
1

<210> 972
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 972

Gln Gly Gly Tyr Ser Gly Asn Ile Phe Ala
1 5 10

<210> 973
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 973

Gly Leu Asp Phe Ser Thr Asn Tyr Tyr
1 5

<210> 974
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 974

Ile Ser Thr Ser Ser Gly Asn Thr
1 5

<210> 975
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 975

Ala Arg Cys Asp Ile Val Tyr Val Gly Tyr Gly Tyr Ala Ser Arg Leu
1 5 10 15

Asp Leu

<210> 976
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 976

Glu Ser Val Tyr Asn Asn Asn Asn
1 5

<210> 977
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 977

Gly Ala Ser
1

<210> 978
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 978

Ala Gly Gly Gly Ser Thr Ser Val Gly Ala
1 5 10

<210> 979
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 979

Gly Phe Thr Ile Ser Ser Asp Tyr Asp
1 5

<210> 980
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 980

Ile Leu Gly Gly Ser Gly Gly Ser Thr
1 5

<210> 981
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 981

Thr Arg Ala Ser Gly Phe Thr Tyr Phe Glu Leu
1 5 10

<210> 982
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 982

Gln Ser Val Tyr Asn Asn Lys Asn
1 5

<210> 983
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 983

Tyr Ala Ser
1

<210> 984
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 984

Gln Gly Glu Phe Ser Cys Ser Ser Ser Asp Cys Phe Ala
1 5 10

<210> 985
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 985

Gly Phe Asp Leu Ser Ser Tyr Ala
1 5

<210> 986
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 986

Ile Tyr Gly Gly Ser Gly Ser Thr
1 5

<210> 987
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 987

Ala Arg Ala Tyr Asp Ser Gly Tyr Ile Gly Asn Ser Phe Tyr Ala Phe
1 5 10 15

Asp Pro

<210> 988
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 988

Gln Thr Ile Ser Ser Thr
1 5

<210> 989
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 989

Ser Ala Ser
1

<210> 990
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 990

Ala Gly Tyr Gly Thr Val Gly Val Thr Ala
1 5 10

<210> 991
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 991

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 992
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 992

Ile Ser Thr Ala Gly Asn Thr
1 5

<210> 993
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 993

Thr Arg Asp Gly Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu
1 5 10

<210> 994
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 994

Glu Ser Ile Asp Arg Phe
1 5

<210> 995
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 995

Asp Ala Ser
1

<210> 996
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 996

Gln Gln Gly Tyr Ala Ile Ser Asp Ile Asp Asn Val
1 5 10

<210> 997
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 997

Gly Ile Asp Leu Asn Asn Asn Ala
1 5

<210> 998
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 998

Ile Ser Thr Ala Asp Thr Thr
1 5

<210> 999
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 999

Ala Arg Ala Ala Tyr Phe Ser Tyr Gly Tyr Phe Asn Leu
1 5 10

<210> 1000
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1000

Gln Asn Ile Gly Asn Ala
1 5

<210> 1001
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1001

Gly Ala Ser
1

<210> 1002
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1002

Gln Ser Tyr Val Tyr Ser Asp Gly Asn Val
1 5 10

<210> 1003
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1003

Gly Phe Ser Phe Asp Ser Asn Tyr Trp
1 5

<210> 1004
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1004

Ile Met Thr Gly Asp Gly Ser Ile
1 5

<210> 1005
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1005

Ala Arg Gly Tyr Asp Gly Ile His Gly Gly Asp Asn Tyr Gly His Val
1 5 10 15

Phe Asn Leu

<210> 1006
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1006

Glu Asn Ile Tyr Thr Leu
1 5

<210> 1007
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1007

Arg Ala Ser
1

<210> 1008
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1008

Gln Gly Tyr Tyr Val Asp Ser Gly Asn Thr
1 5 10

<210> 1009
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1009

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 1010
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1010

Ile Ser Thr Ala Gly Asn Thr
1 5

<210> 1011
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1011

Ala Arg Asp Gly Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu
1 5 10

<210> 1012
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1012

Glu Ser Ile Asp Arg Phe
1 5

<210> 1013
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1013

Asp Ala Ser
1

<210> 1014
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1014

Gln Gln Gly Tyr Ser Ile Ser Asp Ile Asp Asn Val
1 5 10

<210> 1015
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1015

Gly Leu Ser Phe Ser Asp Arg Tyr Trp
1 5

<210> 1016
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1016

Ile Tyr Thr Gly Ser Asp Gly Val Ala
1 5

<210> 1017
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1017

Ala Arg Asp Arg Glu Tyr Gly Ser Asn Thr Gly Val Tyr Ser Leu
1 5 10 15

<210> 1018
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1018

Gln Asn Ile Tyr Ser Asn
1 5

<210> 1019
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1019

Asp Ala Ser
1

<210> 1020
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1020

Gln Cys Thr Tyr Tyr Gly Asn Asn Tyr Ile Thr
1 5 10

<210> 1021
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1021

Gly Phe Thr Leu Ser Ser Tyr Leu
1 5

<210> 1022
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1022

Ile Gly Thr Tyr Ser Gly Ala Thr
1 5

<210> 1023
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1023

Ala Arg Asp Tyr Asn Phe Ala Leu
1 5

<210> 1024
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1024

Glu Ser Val Tyr Asn Asn Asn Tyr
1 5

<210> 1025
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1025

Gly Ala Ser
1

<210> 1026
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1026

Ala Gly Tyr Lys Ser Ser Trp Thr Asp Gly Asn Ala
1 5 10

<210> 1027
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1027

Gly Phe Ser Leu Asn Ser Tyr Val
1 5

<210> 1028
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1028

Ile Asp Tyr Gly Gly Ala Pro
1 5

<210> 1029
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1029

Ala Arg Gly Gly Tyr Gly Gly Tyr Val Leu Val Thr Ala Leu
1 5 10

<210> 1030
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1030

Glu Asn Ile Tyr Ser Tyr
1 5

<210> 1031
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 1031

Gln Ala Ser
1

<210> 1032
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1032

Gln Thr Tyr Tyr Gly Gly Ser Thr Tyr Gly Asn Gly
1 5 10

<210> 1033
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1033

Gly Phe Thr Leu Ser Ser Arg Tyr Tyr
1 5

<210> 1034
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1034

Ile Tyr Ala Gly Ser Leu Arg Thr
1 5

<210> 1035
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1035

Ala Arg Ser Pro Gly Val Ala Ala Ser Tyr Pro Glu Leu
1 5 10

<210> 1036
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1036

Gln Ser Val Gly Asn Ala Asp Asn
1 5

<210> 1037
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1037

Tyr Ala Ala
1

<210> 1038
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1038

Gly Gly Gly Tyr Tyr Asn Ser Thr Asp Thr Phe Tyr Thr
1 5 10

<210> 1039
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1039

Gly Phe Asp Phe Ser Ser Thr Tyr Trp
1 5

<210> 1040
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1040

Ile Asp Asp Ser Tyr Ala Tyr Thr
1 5

<210> 1041
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1041

Ala Arg Asp Gly Tyr Pro Gly Tyr Gly Val Gly Ser Phe Asn Leu
1 5 10 15

<210> 1042
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1042

Glu Ser Val Tyr Ser Asn Asn Arg
1 5

<210> 1043
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1043

Leu Ala Ser
1

<210> 1044
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1044

Ala Gly Tyr Lys Ser Tyr Ser Asp Asp Gly Thr Gly
1 5 10

<210> 1045
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1045

Gly Phe Ser Leu Ser Ser Tyr Val
1 5

<210> 1046
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1046

Ile Asp Tyr Gly Gly Ala Pro
1 5

<210> 1047
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1047

Ala Arg Gly Gly Tyr Gly Gly Tyr Val Leu Val Thr Val Leu
1 5 10

<210> 1048
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1048

Gln Asn Ile Tyr Ser Ser
1 5

<210> 1049
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1049

Gln Ala Ser
1

<210> 1050
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1050

Gln Thr Tyr Tyr Gly Gly Ser Thr Tyr Gly Asn Gly
1 5 10

<210> 1051
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1051

Gly Phe Asp Leu Ser Ile Asn Val
1 5

<210> 1052
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1052

Ile Asp Asn Gly Asp Gly Ser Thr
1 5

<210> 1053
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1053

Ala Arg Pro Gly Thr Phe Thr Tyr Gly Gly Asn Thr Tyr Pro Gly Ser
1 5 10 15

Phe Val Leu

<210> 1054
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1054

Gln Ser Ile Ser Asn Ala
1 5

<210> 1055
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1055

Thr Ala Ser
1

<210> 1056
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1056

Gln Asn Tyr Tyr Val Asn Ile Ile Gly Ile Gly
1 5 10

<210> 1057
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1057

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1058
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1058

Ile Tyr Gly Ser Gly Ser Thr
1 5

<210> 1059
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1059

Ala Arg Ser Lys Gly Tyr Asn Tyr Asn Leu Trp Asn Leu
1 5 10

<210> 1060
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1060

Gln Asn Ile Tyr Thr Asn
1 5

<210> 1061
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1061

Asp Ala Ser
1

<210> 1062
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1062

Gln Thr Tyr Ser Tyr Ser Gly Ser Ser Ser Ala Asn Pro
1 5 10

<210> 1063
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1063

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 1064
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1064

Ile Tyr Leu Thr Asp Thr Thr
1 5

<210> 1065
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1065

Ala Arg His Leu Asp Thr Ser Ser Gly Gly Phe Tyr Phe Asn Leu
1 5 10 15

<210> 1066
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1066

Gln Ser Val Tyr Asn Ser Lys Ile
1 5

<210> 1067
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1067

Asp Ala Ser
1

<210> 1068
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 1068

Gln Gly Glu Phe Thr Cys Thr Ser Ala Asp Cys Ile Ala
1 5 10

<210> 1069
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1069

Glu Phe Ser Phe Ser Asn Asn Tyr Tyr
1 5

<210> 1070
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1070

Ile Tyr Val His Ser Gly Thr Thr
1 5

<210> 1071
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1071

Ala Arg Gly Arg Ser Gly Tyr Tyr Ala Asp Ala Phe Asp Thr
1 5 10

<210> 1072
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1072

Gln Ser Val Tyr Asn Asn Asn Asn
1 5

<210> 1073
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1073

Leu Ala Ser
1

<210> 1074
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1074

Gln Gly Thr Asp Ser Ser Ser Gly Trp Glu His Ala
1 5 10

<210> 1075
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1075

Gly Leu Asp Phe Ser Ser Thr Pro Tyr
1 5

<210> 1076
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1076

Ile Tyr Thr Gly Ser Val Ile Tyr Thr
1   5

<210> 1077
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1077

Ala Arg Ser Pro Ala Gly Tyr Ala Ala Tyr Gly Tyr Gly Gly Phe Asn
1   5   10   15

Leu

<210> 1078
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1078

Gln Asn Ile Tyr Asn Asn
1   5

<210> 1079
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1079

Gly Ala Ser
1

<210> 1080
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1080

Gln Ser Ala Tyr Tyr Ser Ser Ser Ala Thr Asp Met Ala
1 5 10

<210> 1081
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1081

Gly Phe Ser Leu Ser Ser Tyr His
1 5

<210> 1082
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1082

Ile Tyr Ala Gly Ser Gly Asn Thr
1 5

<210> 1083
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1083

Ala Arg Gln Pro Gly Gly Gly Ala Ser Asp Thr Gln Leu Asp Leu
1 5 10 15

<210> 1084
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1084

Gln Ser Val Phe Asp Asn Asn Gln
1   5

<210> 1085
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1085

Arg Ala Ser
1

<210> 1086
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1086

Leu Gly Gly Tyr Ser Ser Ser Ser Asp Thr Val
1   5   10

<210> 1087
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1087

Gly Phe Ser Phe Ser Ser Arg Phe Trp
1   5

<210> 1088
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1088

Ile Tyr Gly Gly Ser Thr Ser Ala Thr
1   5

<210> 1089
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1089

Thr Arg Leu Pro Thr Tyr Asp Ala Tyr Val Phe Asn Leu
1 5 10

<210> 1090
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1090

Glu Ser Val Phe Ser Asn Asn Tyr
1 5

<210> 1091
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1091

Glu Ala Ser
1

<210> 1092
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1092

Gly Gly Tyr Lys Ser Asn Asn Val Asp Gly Tyr Ala
1 5 10

<210> 1093
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1093

Gly Phe Ser Leu Asn His Tyr His
1 5

<210> 1094
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1094

Ile Asp Asn Ser Gly Tyr Ile
1 5

<210> 1095
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1095

Gly Lys Tyr Tyr Ser Gly Gly Ser Tyr Asp Leu
1 5 10

<210> 1096
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1096

Gln Ser Val Trp Asn Asn Asn Trp
1 5

<210> 1097
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1097

Glu Thr Ser
1

<210> 1098
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1098

Gln Gly Glu Phe Ser Cys Ser Ser Asp Asp Cys Asn Ala
1 5 10

<210> 1099
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1099

Gly Phe Ser Leu Ser Gly His Asp
1 5

<210> 1100
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1100

Ile Gly Ser Asn Ser Lys Thr
1 5

<210> 1101
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1101

Thr Val Val Gly Pro Gly Val Gly Gly Phe Tyr Phe Asp Leu
1 5 10

<210> 1102
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1102

Gln Ser Ile Gly Ser Asp
1 5

<210> 1103
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1103

Ala Ala Ser
1

<210> 1104
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1104

Gln Cys Thr Tyr Val Gly Ser Thr Tyr Leu Gly Ala
1 5 10

<210> 1105
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1105

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1106
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1106

Ile Ser Ser Ser Gly Ser Thr
1 5

<210> 1107
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1107

Ala Arg Asp Gly Asp Ser Gly Arg Gly Tyr Tyr Phe His Phe
1 5 10

<210> 1108
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1108

Glu Asp Ile Tyr Ser Leu
1 5

<210> 1109
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1109

Asp Ala Ser
1

<210> 1110
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1110

Gln Gln Gly Tyr Thr Thr Val Thr Ile Val Asp Asn Val
1 5 10

<210> 1111
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1111

Gly Phe Ser Phe Ser Ser Ser Tyr Trp
1 5

<210> 1112
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1112

Met Ile Thr Gly Arg Gly Asn Thr
1 5

<210> 1113
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1113

Ala Arg Gly Pro Gly Gly Ala Asp Pro Ile Asn Leu
1 5 10

<210> 1114
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1114

Gln Asn Ile Tyr Asn Asn
1 5

<210> 1115
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1115

Leu Ala Ser
1

<210> 1116
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1116

Gln Ser Thr Tyr Asp Gly Ser Ser Tyr Val Pro Asn Ala
1 5 10

<210> 1117
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1117

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1118
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1118

Ile Tyr Ala Ser Asp Arg Thr
1 5

<210> 1119
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1119

Gly Arg Tyr Gly Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu
1 5 10 15

<210> 1120
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1120

Gln Ser Gly Asp Asn Tyr
1 5

<210> 1121
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1121

Leu Ala Ser
1

<210> 1122
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1122

Gln Asn Tyr Cys Ala Gly Ser Gly Val Cys Val Gly Val Ala
1 5 10

<210> 1123
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1123

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1124
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1124

Ile Tyr Gly Gly Ser Gly Ser Thr
1 5

<210> 1125
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1125

Ala Arg Ala Tyr Asp Ser Gly Tyr Ile Gly Asn Ser Phe Tyr Ile Phe
1 5 10 15

Asp Pro

<210> 1126
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1126

Gln Ser Ile Ser Ser Arg
1 5

<210> 1127
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1127

Ser Ala Ser
1

<210> 1128
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1128

Ala Gly Tyr Gly Gly Leu Gly Ile Thr Ala
1 5 10

<210> 1129
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1129

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 1130
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1130

Ile Ser Thr Ala Gly Asn Thr
1 5

<210> 1131
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1131

Ala Arg Asp Gly Ala Gly Asp Ser Asn Tyr Tyr Arg Asn Leu
1 5 10

<210> 1132
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1132

Gln Ser Ile Asp Arg Phe
1 5

<210> 1133
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1133

Asp Ala Ser
1

<210> 1134
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1134

Gln Gln Gly Tyr Ser Ile Ser Asp Ile Asp Asn Val
1 5 10

<210> 1135
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1135

Gly Phe Ser Leu Ser Ser His Ala
1 5

<210> 1136
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1136

Ile Asp Thr Asp Ala Ser Ala
1 5

<210> 1137
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1137

Ala Arg Asp Gly Gly Tyr Thr Asp Tyr Ser Tyr Tyr Ala Met Asp Leu
1 5 10 15

<210> 1138
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1138

Glu Thr Ile Tyr Val Asn
1 5

<210> 1139
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1139

Arg Ala Ser
1

<210> 1140
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1140

His Gln Ala Tyr Arg Arg Ser Asp Val Gly Asn Ile
1 5 10

<210> 1141
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1141

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 1142
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1142

Ile Thr Thr Asp Gly Gly Thr
1 5

<210> 1143
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1143

Ala Arg Gly Tyr Ala Ser Phe Asn Leu
1 5

<210> 1144
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1144

Gln Ser Val Leu Ser Asn Ser Tyr
1 5

<210> 1145
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1145

Ala Ala Ser
1

<210> 1146
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1146

Gln Gly Thr Asp Tyr Ser Gly Gly Trp Tyr Val Ala
1 5 10

<210> 1147
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1147

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1148
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1148

Ile Tyr Thr Thr Asn Arg Thr
1 5

<210> 1149
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1149

Gly Arg Tyr Gly Arg Gly Ser Gly Gly Tyr Tyr Tyr Gly Met Asp Leu
1 5 10 15

<210> 1150
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1150

Gln Ser Gly Asp Asn Tyr
1 5

<210> 1151
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1151

Gln Ala Ser
1

<210> 1152
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1152

Gln Asn Tyr Cys Ala Gly Ser Gly Val Cys Leu Gly Ile Ala
1 5 10

<210> 1153
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1153

Gly Phe Asp Phe Ser Ser Asp Ala
1 5

<210> 1154
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1154

Ile Tyr Val Gly Ser Val Gly Ser Ser
1 5

<210> 1155
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1155

Ala Arg Gly Glu Asn Ile Ala Tyr Phe Thr Phe
1 5 10

<210> 1156
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1156

Gln Ser Ile Asn Ser Trp
1 5

<210> 1157
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1157

Lys Ala Ser
1

<210> 1158
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1158

Gln Gly Tyr Tyr Tyr Tyr Ser Ser Ser Asn Phe Ala Ser Asn Ala
1 5 10 15

<210> 1159
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1159

Gly Leu Ser Leu Ser Ser Tyr Asp
1 5

<210> 1160
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1160

Ile Trp Ser Gly Gly Ser Thr
1 5

<210> 1161
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1161

Ala Arg Gly Tyr Val Glu Phe Asp Leu
1 5

<210> 1162
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1162

Gln Ser Leu Tyr Ser Asn Asn Tyr
1 5

<210> 1163
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1163

Pro Ala Ser
1

<210> 1164
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1164

Gln Gly Thr Phe Tyr Asp Ser Gly Trp Leu Ser Ala
1 5 10

<210> 1165
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1165

Gly Phe Ser Leu Asn Ser Tyr Tyr
1 5

<210> 1166
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1166

Ile Asn Gly Tyr Asp Asn Thr
1 5

<210> 1167
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1167

Ala Arg Asp Pro Gly Gly Ala Ser Gly Thr Gly Arg Leu Asp Leu
1 5 10 15

<210> 1168
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1168

Gln Ser Ile Ser Thr Ala
1 5

<210> 1169
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1169

Asp Ala Ser
1

<210> 1170
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1170

Gln Cys Thr Tyr Tyr Asp Ala Tyr Asp Val Gly Ala
1 5 10

<210> 1171
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1171

Gly Ile Asp Leu Ser Ser Tyr Trp
1 5

<210> 1172
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1172

Ile Ala Thr Tyr Ser Ser Val Thr
1 5

<210> 1173
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1173

Ala Arg Asp Pro Tyr Ser Phe Asn Gly Ser Leu Phe Thr Leu
1 5 10

<210> 1174
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1174

Gln Asn Ile Gly Thr Tyr
1 5

<210> 1175
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1175

Thr Ala Ser
1

<210> 1176
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1176

Ala Gly Tyr Lys Asn Tyr Asn Asn Asp Asp Asn Gly
1 5 10

<210> 1177
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1177

Gly Phe Ser Leu Asn Asn Tyr Asp
1 5

<210> 1178
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1178

Ile Asp Thr Gly Gly Ser Ala
1 5

<210> 1179
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1179

Ala Arg Gly Tyr Ile His Gly Tyr Leu
1 5

<210> 1180
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1180

Gln Asn Val Tyr Asn Asn
1 5

<210> 1181
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1181

Ser Ala Ser
1

<210> 1182
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1182

Gln Ser Ala Asp Trp Glu Ser Ser Asn Phe Phe Trp Ala
1 5 10

<210> 1183
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1183

Gly Phe Ser Leu Ser Ser Tyr Gly
1 5

<210> 1184
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1184

Ile Ile Asp Val Thr Tyr Thr
1 5

<210> 1185
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1185

Ala Arg Thr Pro Gly Tyr Gly Ile Tyr Ala Tyr Gly Asn Leu
1 5 10

<210> 1186
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1186

Gln Ser Val Tyr Gly Asn Asn Trp
1 5

<210> 1187
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1187

Tyr Ala Ser
1

<210> 1188
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1188

Gln Gly Tyr Tyr Ser Ser Ala Ala Tyr Val
1 5 10

<210> 1189
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1189

Gly Phe Ser Leu Ser Thr Tyr Val
1 5

<210> 1190
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1190

Ile Tyr Gly Gly Gly Thr Ile
1 5

<210> 1191
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1191

Ala Arg Asp Gly Ser Ser Ser Gly Asp Pro Gly Phe Asn Leu
1 5 10

<210> 1192
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1192

Gln Ser Ile Ser Asn Trp
1 5

<210> 1193
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1193

Lys Ala Ser
1

<210> 1194
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1194

Gln Ser Thr Gly Ser Thr Ala Tyr Gly Arg Ala
1 5 10

<210> 1195
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1195

Gly Phe Ser Leu Ser His Tyr His
1 5

<210> 1196
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1196

Thr Leu Asn Asn Gly Arg Ile
1   5

<210> 1197
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1197

Ala Lys Tyr Phe Val Ser Glu Ser Tyr Asp Leu
1   5   10

<210> 1198
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1198

Gln Ser Val Tyr Asn Asp Asn Trp
1   5

<210> 1199
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1199

Gly Ala Ser
1

<210> 1200
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 1200

Leu Gly Gly Tyr Lys Asp Asn Ser Asp Asn Val
1 5 10

<210> 1201
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1201

Gly Ile Asp Leu Ser Ser Tyr Asp
1 5

<210> 1202
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1202

Ile Ser Thr Gly Gly Asp Thr
1 5

<210> 1203
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1203

Ala Arg Gly Tyr Tyr Thr Leu Ala Leu
1 5

<210> 1204
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1204

Gln Ser Ile Asn Ser Trp
1 5

<210> 1205
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1205

Asp Thr Ser
1

<210> 1206
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1206

Gln Ser Tyr Tyr Tyr Ile Thr Ser Ser Tyr Ala Ile Thr
1 5 10

<210> 1207
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1207

Gly Ser Asp Ile Ser Gly Tyr Ala
1 5

<210> 1208
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1208

Ile Ala Ala Asp Gly Asn Ala
1 5

<210> 1209
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1209

Ala Arg Gly Tyr Ser Ser Gly Trp Gly Thr Tyr Gly Tyr Phe Asp Leu
1 5 10 15

<210> 1210
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1210

Glu Asp Ile Tyr Ser Tyr
1 5

<210> 1211
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1211

Arg Ala Ser
1

<210> 1212
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1212

Gln Ser Tyr Tyr Tyr Ser His Ser Thr Thr Tyr Ser Asn Val
1 5 10

<210> 1213
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1213

Gly Phe Ser Leu Ser Thr Tyr Ala
1 5

<210> 1214
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1214

Asn Thr Arg Ser Gly Ile Ile
1 5

<210> 1215
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1215

Ala Arg Asp Leu Tyr Ala Asp Val Ser Gly Tyr Tyr Leu Gly Leu
1 5 10 15

<210> 1216
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1216

Gln Ser Leu Tyr Asn Asn Lys Asn
1 5

<210> 1217
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1217

Tyr Ala Ser
1

<210> 1218
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1218

Gln Gly Glu Phe Ile Cys Ser Ser Ala Asp Cys Val Val
1 5 10

<210> 1219
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1219

Gly Phe Ser Leu Ser Tyr Tyr Tyr
1 5

<210> 1220
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1220

Thr Gly Gly Gly Gly Asp Thr
1 5

<210> 1221
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1221

Ala Arg Gly Thr Asp Gly Ala Ala His Thr Gly Phe Ala Leu
1 5 10

<210> 1222
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1222

Glu Asp Ile Ser Ser Arg
1 5

<210> 1223
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1223

Leu Ala Ser
1

<210> 1224
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1224

Gln Ser Ser Ser Tyr Gly Thr Ser Thr Ile Tyr Gly Thr
1 5 10

<210> 1225
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1225

Gly Phe Ser Leu Ser Asn Phe Tyr
1   5

<210> 1226
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1226

Ile Ser Thr Gly Gly Ser Ala
1   5

<210> 1227
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1227

Ala Arg Gly Ser Gly Thr Asp Gly Ala Trp Leu Tyr Tyr Gly Ile Asp
1   5   10   15

Leu

<210> 1228
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1228

Glu Asn Ile Gly His Ala
1   5

<210> 1229
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1229

Arg Thr Ser
1

<210> 1230
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1230

Gln Ile Asn Tyr Gly Gly Gly Ser Gly Gly Tyr Phe Ala
1 5 10

<210> 1231
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1231

Gly Phe Ser Phe Ser Ser Ser Tyr Tyr
1 5

<210> 1232
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1232

Tyr Thr Tyr Ser Gly Asp Thr
1 5

<210> 1233
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1233

Ala Lys Ala Gly Tyr Gly Gly Tyr Gly Tyr Pro Ile Phe Asn Leu
1 5 10 15

<210> 1234
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1234

Gln Ser Ile Gly Ser Ser
1 5

<210> 1235
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1235

Tyr Val Ser
1

<210> 1236
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1236

Gln Ser Tyr Tyr Gly Ser Gly Thr Thr Val Phe Trp Ala
1 5 10

<210> 1237
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1237

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1238
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1238

Ile Trp Ser Gly Gly Thr Thr
1 5

<210> 1239
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1239

Ala Arg Gly Leu Gly Asp Arg Gly Ser Ser Asp Tyr Tyr Met Pro Leu
1 5 10 15

Lys Leu

<210> 1240
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1240

Glu Asp Ile Glu Ser Tyr
1 5

<210> 1241
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1241

Ser Thr Ser
1

<210> 1242
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1242

Gln Cys Thr Tyr Asp Gly Ser Ser Ala Val Trp Gly Ala
1 5 10

<210> 1243
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1243

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 1244
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1244

Ile Ser Thr Gly Gly Ser Ala
1 5

<210> 1245
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 1245

Ala Arg Gly Trp Arg Tyr Glu Asp Leu
1 5

<210> 1246
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1246

Gln Thr Val Tyr Asn Asn Asn Tyr
1 5

<210> 1247
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1247

Asp Ala Ser
1

<210> 1248
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1248

Gln Gly Thr Tyr Tyr Asp Asn Ala Trp Tyr His Thr
1 5 10

<210> 1249
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1249

Gly Ile Asp Leu Ser Ser Tyr Val
1 5

<210> 1250
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1250

Ile Asp Tyr Gly Gly Thr Ala
1 5

<210> 1251
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1251

Ala Arg Gly Gly Tyr Gly Gly Tyr Thr Leu Val Thr Ala Leu
1 5 10

<210> 1252
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1252

Gln Ser Ile Ser Ser Tyr
1 5

<210> 1253
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1253

Ser Thr Ser
1

<210> 1254
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1254

Gln Thr Tyr Tyr Gly Gly Gly Pro Phe Gly Asn Gly
1 5 10

<210> 1255
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1255

Gly Phe Ser Leu Ser Ser Tyr Gly
1 5

<210> 1256
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1256

Ile Ser Ser Asn Asp Asn Lys
1 5

<210> 1257
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1257

Val Arg Asn Gly Val Tyr Asn Thr Gly Asn Tyr Phe Asp Leu
1 5 10

<210> 1258
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1258

Gln Ser Leu Tyr Asn Asn Lys Asn
1 5

<210> 1259
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1259

Thr Ala Ser
1

<210> 1260
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1260

Gln Gly Glu Phe Asp Cys Asp Ser Asp Asp Cys Phe Ala
1 5 10

<210> 1261
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1261

Gly Phe Ser Leu Ser Thr Tyr Ala
1 5

<210> 1262
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1262

Ile Tyr Thr Gly Gly Ser Thr
1 5

<210> 1263
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1263

Thr Arg Asp Leu Gly Ala Thr Tyr Asp Tyr Phe Asp Leu
1 5 10

<210> 1264
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1264

Gln Ser Ile Ser Thr Ala
1 5

<210> 1265
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1265

Asp Thr Ser
1

<210> 1266
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1266

Gln Gln Gly Tyr Arg His Thr Asn Val Asp Asn Pro
1 5 10

<210> 1267
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1267

Gly Phe Ser Leu Ser Lys Tyr Asp
1 5

<210> 1268
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1268

Ile Gly Ala Ser Asp Arg Thr
1 5

<210> 1269
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1269

Ala Arg Glu Tyr Pro Asp Ala Arg Gly Tyr Tyr Tyr Asn Leu
1 5 10

<210> 1270
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1270

Gln Ser Ile Ser Asp Leu
1 5

<210> 1271
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1271

Asp Ala Ser
1

<210> 1272
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1272

Gln Gln Gly Tyr Ser Ile Thr Asn Val Asp Asn Val
1 5 10

<210> 1273
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1273

Gly Phe Ser Leu Ser Ser Asn Ala
1 5

<210> 1274
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1274

Ile Thr His Ser Asp Asn Thr
1 5

<210> 1275
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1275

Ala Arg Asp Gly Tyr Val Ser Ser Ser Gly Thr Tyr Met Gly Gly Tyr
1 5 10 15

Phe Asp Leu

<210> 1276
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1276

Gln Ile Ile Tyr Asn Asp Lys Asn
1 5

<210> 1277
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1277

Tyr Ala Ser
1

<210> 1278
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1278

Gln Gly Glu Phe Ser Cys Ser Ser Ala Asp Cys Ile Ala
1 5 10

<210> 1279
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1279

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1280
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1280

Ile Gly Ala Gly Gly Ser Thr
1 5

<210> 1281
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1281

Ala Arg Asp Ile Gly Gly Asp Tyr Ser Ser Arg Tyr Tyr Phe Ser Leu
1 5 10 15

<210> 1282
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 1282

Gln Ser Thr Ser Thr Ala
1 5

<210> 1283
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1283

Asp Ser Ser
1

<210> 1284
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1284

Gln Gln Gly Tyr Asn Ile Asn Asn Val Ala
1 5 10

<210> 1285
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1285

Gly Phe Thr Ile Ser Ser His His
1 5

<210> 1286
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1286

Ile Phe Pro Ser Gly His Thr
1 5

<210> 1287
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1287

Val Arg Asp Val Gly Tyr Phe Thr Leu
1 5

<210> 1288
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1288

Glu Ser Val Gly Gly Asn Asn Trp
1 5

<210> 1289
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1289

Gly Ala Ser
1

<210> 1290
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1290

Gln Gly Tyr Tyr Ser Asp Val Thr Asn Ala
1   5   10

<210> 1291
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1291

Gly Phe Ser Leu Ser Ser Tyr Tyr
1   5

<210> 1292
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1292

Ile Thr Ser Gly Gly Ser Gly Ser Thr
1   5

<210> 1293
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1293

Ala Arg Tyr Gly Asp Ser Phe Tyr Trp Ala Leu Asp Leu
1   5   10

<210> 1294
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1294

Gln Ser Val Leu Asn Asn Asp
1   5

<210> 1295
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1295

Ala Ala Ser
1

<210> 1296
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1296

Gln Gly Tyr Phe Ile Asp Val Asn Asn Pro
1 5 10

<210> 1297
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1297

Gly Ile Asp Leu Ser Arg Tyr Asp
1 5

<210> 1298
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1298

Ile Gly Ala Ser Gly Ser Thr
1 5

<210> 1299
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1299

Ala Arg Glu Glu Thr Asp Ser Arg Gly Tyr Tyr Tyr Ser Leu
1 5 10

<210> 1300
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1300

Gln Ser Ile Ser Asp Leu
1 5

<210> 1301
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1301

Asp Ala Ser
1

<210> 1302
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1302

Gln Gln Gly Tyr Ser Ile Asn Asn Val Asp Asn Ala
1 5 10

<210> 1303
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1303

Gly Phe Ser Leu Ser Ser Tyr Gly
1 5

<210> 1304
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1304

Ser Ser Ser Asn Asp Asn Thr
1 5

<210> 1305
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1305

Ala Arg Asn Gly Val Tyr Ser Thr Gly Asn Tyr Phe Asp Leu
1 5 10

<210> 1306
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1306

Gln Ser Val Tyr Asn Asn Asn Asn
1 5

<210> 1307
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1307

Ala Ala Ser
1

<210> 1308
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1308

Gln Gly Glu Phe Asp Cys Asp Ser Ala Asp Cys Phe Ala
1 5 10

<210> 1309
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1309

Gly Phe Ser Phe Ser Ser Asn Tyr Cys
1 5

<210> 1310
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1310

Ile Cys Ala Gly Ala Ser Gly Ala Thr
1 5

<210> 1311
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 1311

Ala Arg Tyr Asp Asn Ser Gly Trp Gly Asp Phe Lys Leu
1 5 10

<210> 1312
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1312

Gln Asn Ile Gly Thr Tyr
1 5

<210> 1313
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1313

Ala Ala Ser
1

<210> 1314
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1314

Gln Asn Thr Tyr Tyr Asp Ser Pro Val Val Gly Gly Ala
1 5 10

<210> 1315
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1315

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1316
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1316

Ile Ser Thr Gly Gly Ser Thr
1 5

<210> 1317
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1317

Ala Arg Asp Val Gly Gly Thr Thr Val Pro Tyr Tyr Phe Asp Leu
1 5 10 15

<210> 1318
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1318

Glu Ser Ile Ser Ser Trp
1 5

<210> 1319
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1319

Glu Ala Ser
1

<210> 1320
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1320

Gln Gln Gly Tyr Gly Ser Ser Asp Val His Asn Ile
1 5 10

<210> 1321
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1321

Gly Phe Ser Leu Ser Asn Tyr His
1 5

<210> 1322
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1322

Ile Tyr Ala Gly Ser Asp Ser Thr
1 5

<210> 1323
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1323

Ala Arg Gln Pro Gly Gly Gly Ala Ser Asp Thr Gln Leu Asp Leu
1 5 10 15

<210> 1324
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1324

Gln Asn Ile Phe Asp Asn Asn Gln
1 5

<210> 1325
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1325

Arg Ala Ser
1

<210> 1326
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1326

Leu Gly Gly Tyr Ser Ser Ser Ser Asp Thr Val
1 5 10

<210> 1327
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1327

Gly Phe Ser Leu Ser Ser Asn Ala
1 5

<210> 1328
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1328

Ile Asp Thr Gly Gly Ser Ala
1 5

<210> 1329
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1329

Ala Arg Asp Arg Tyr Thr Asp Ser Ser Gly Tyr Asn Leu
1 5 10

<210> 1330
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1330

Gln Ser Ile Gly Ala Ser
1 5

<210> 1331
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1331

Ser Ala Ser
1

<210> 1332
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1332

Gln Ser Tyr Tyr Tyr Arg Ser Ser Ser Gly Tyr Gly Tyr Ala
1 5 10

<210> 1333
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1333

Gly Phe Ser Leu Ser Ser Tyr Val
1 5

<210> 1334
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1334

Ser Asp Tyr Gly Gly Thr Ala
1 5

<210> 1335
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1335

Ala Arg Gly Gly Tyr Asp Gly Tyr Leu Leu Val Thr Gly Leu
1 5 10

<210> 1336
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1336

Gln Ser Ile Ser Ser Tyr
1 5

<210> 1337
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1337

Ser Ala Ser
1

<210> 1338
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1338

Gln Thr Tyr Tyr Gly Gly Gly Pro Phe Gly Asn Gly
1 5 10

<210> 1339
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1339

Gly Ile Asp Leu Thr Ser Tyr Ala
1 5

<210> 1340
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1340

Ile Gly Ser Gly Gly Gly Ile
1 5

<210> 1341
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1341

Ala Arg Val Pro Gln Trp Ala Tyr Leu Asp Leu
1 5 10

<210> 1342
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1342

Glu Ser Val Tyr Lys Asn Asn Tyr
1 5

<210> 1343
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1343

Asp Ala Ser
1

<210> 1344
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1344

Gln Gly Tyr Tyr Gly Gly Gly Ile Phe Thr
1 5 10

<210> 1345
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1345

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1346
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1346

Ile Ser Thr Ile Ser Asn Thr
1 5

<210> 1347
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1347

Ala Arg Gly Ala Ser Asn Thr Ile Asn Asp Tyr Phe Asn Leu
1 5 10

<210> 1348
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1348

Gln Ser Val Gly Asn Tyr
1 5

<210> 1349
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1349

Asp Ala Ser
1

<210> 1350
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1350

His Ser Tyr Val Tyr Ser Ser Gly Asn Val Tyr Asn Gly
1 5 10

<210> 1351
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1351

Gly Ile Asp Leu Ser Ser Asn Val
1 5

<210> 1352
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1352

Ile Tyr Ala Ser Ala Thr Thr
1 5

<210> 1353
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1353

Ala Arg Glu Arg Leu Ala Ser Arg Gly Asp Tyr Ser Asp Leu
1 5 10

<210> 1354
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1354

Glu Ser Ile Gly Asp Leu
1 5

<210> 1355
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1355

Asp Ala Ser
1

<210> 1356
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1356

Gln Gln Gly Tyr Thr Thr Thr Ser Asn Val Asp Asn Ile
1 5 10

<210> 1357
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1357

Gly Phe Ser Leu Ser Gly Tyr His
1 5

<210> 1358
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1358

Ile Gly Ser Asn Gly Asn Thr
1 5

<210> 1359
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1359

Ala Arg Ser Ser Gly Trp Gly Ala Arg Phe Asn Leu
1 5 10

<210> 1360
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1360

Gln Ser Ile Tyr Asn Asp Asn Glu
1 5

<210> 1361
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1361

Lys Ala Ser
1

<210> 1362
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1362

Leu Gly Gly Gly Met Thr Pro Ser Asp Thr Thr
1 5 10

<210> 1363
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1363

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 1364
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1364

Ile Asp Arg Ala Gly Thr Thr
1 5

<210> 1365
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1365

Ala Arg Asn Phe Ile Tyr Gly Val Gly Thr Tyr Tyr Gly Ser Asp Leu
1 5 10 15

<210> 1366
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1366

Glu Ser Ile Ser Arg Arg
1 5

<210> 1367
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1367

Gly Ala Ser
1

<210> 1368
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1368

Gln Asp Thr Asp Tyr Gly Ser Gly His Leu Gly Ala
1 5 10

<210> 1369
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1369

Gly Phe Ser Leu Ser Ser His Gly
1 5

<210> 1370
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1370

Ile Tyr Val Ile Ser Gly His Ala
1 5

<210> 1371
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1371

Ala Arg Gly Asn Tyr Gly Ser Asp Ser Gly Pro Asn Phe Thr Arg Leu
1 5 10 15

Asp Leu

<210> 1372
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1372

Gln Ser Leu Tyr Asn Asn Asp Tyr
1 5

<210> 1373
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1373

Leu Ala Ser
1

<210> 1374
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1374

Gln Gly Glu Phe Ser Cys Ser Ser Gly Asp Cys Leu Ala
1 5 10

<210> 1375
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1375

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 1376
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1376

Ile Ser Ser Ser Gly Ser Thr
1 5

<210> 1377
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 1377

Ala Arg Thr Ser Leu Asp Gly Asn Leu
1 5

<210> 1378
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1378

Gln Ser Ile Tyr Asn Tyr
1 5

<210> 1379
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1379

Asp Ala Ser
1

<210> 1380
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1380

Gln Gln Asp Tyr Ser Val Ser Asp Val Asp Asn Ser
1 5 10

<210> 1381
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1381

Gly Phe Ser Leu Ser Ser Ser His
1 5

<210> 1382
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1382

Ile Asn Ile Gly Asp Ile Ala
1 5

<210> 1383
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1383

Ala Arg Glu Asn Ala Tyr Gly Thr Gly Trp Asp Phe Asp Leu
1 5 10

<210> 1384
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1384

Glu Ser Ile Arg Asn Ala
1 5

<210> 1385
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1385

Ser Ala Ser
1

<210> 1386
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1386

Gln Gln Gly Phe Ser Leu Arg Asn Val Asp Asn Ala
1 5 10

<210> 1387
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1387

Gly Phe Ser Leu Ser Asn Tyr Ala
1 5

<210> 1388
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1388

Ile Tyr Thr Ser Gly Thr Thr
1 5

<210> 1389
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1389

Ala Arg Ser Arg Tyr Tyr Gly Ser Gly Trp Gly Gly Tyr Tyr Phe Asn
1 5 10 15

Leu

<210> 1390
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1390

Glu Asp Ile Tyr Ser Leu
1 5

<210> 1391
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1391

Gly Ala Ser
1

<210> 1392
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1392

His Gly Gly Thr Tyr Thr Gly Ser Ala Asp Ile Asn Ala
1 5 10

<210> 1393
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1393

Gly Ile Asp Leu Ser Asn Tyr Ala
1 5

<210> 1394
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1394

Ile Gly Ile Gly Gly Asn Thr
1 5

<210> 1395
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1395

Ala Arg His Ala Gly Ala Gly Val Val Asn Trp Leu Asp Leu
1 5 10

<210> 1396
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1396

Gln Ser Ile Gly Ser Asn
1 5

<210> 1397
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1397

Ala Ala Ser
1

<210> 1398
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1398

Gln Thr Tyr Gly Ser Gly Ser Phe Ser Ser Phe Asn Leu
1 5 10

<210> 1399
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1399

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 1400
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1400

Ile Asn Thr Ser Gly Gly Ala
1 5

<210> 1401
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1401

Ala Arg Tyr Leu Asp Asn Gly Phe Tyr Cys Pro Asp Leu
1 5 10

<210> 1402
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1402

Glu Asp Ile Tyr Thr Leu
1 5

<210> 1403
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1403

Lys Ala Ser
1

<210> 1404
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1404

Gln Ser Thr Tyr Tyr Gly Ala Ala Tyr Ile Gly Ala
1 5 10

<210> 1405
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1405

Gly Val Ser Leu Ser Gly Tyr Tyr Ala
1 5

<210> 1406
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1406

Leu Asp Ala Thr Gly Ser Thr
1 5

<210> 1407
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1407

Ala Arg Gly Ser Tyr Asp Gly Val Gly Tyr Asn Trp Gly Leu
1 5 10

<210> 1408
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1408

Glu Ser Ile Tyr Asn Gly
1 5

<210> 1409
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1409

Gly Ala Ser
1

<210> 1410
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1410

Gln Ser Asn Tyr Gly Ser Gly Ser Arg Ser Asn Tyr Ile
1 5 10

<210> 1411
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1411

Gly Ile Asp Leu Asn Asn Asn Ala
1 5

<210> 1412
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1412

Ile Ser Thr Ala Asp Thr Thr
1 5

<210> 1413
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1413

Ala Arg Ala Ala Tyr Phe Ser Tyr Gly Tyr Phe Asn Leu
1 5 10

<210> 1414
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 1414

Gln Asn Ile Gly Asn Ala
1 5

<210> 1415
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1415

Gly Ala Ser
1

<210> 1416
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1416

Gln Ser Tyr Val Tyr Ser Asp Gly Asn Val
1 5 10

<210> 1417
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1417

Gly Ile Asp Phe Ser Thr Asn Tyr Arg
1 5

<210> 1418
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1418

Ile Asp Thr Asp Asp Ser Asp Ser Thr
1 5

<210> 1419
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1419

Thr Arg Ala Tyr Thr Thr Ser Asp Tyr Ala Trp Ser Phe Tyr Leu
1 5 10 15

<210> 1420
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1420

Gln Ser Ile Ser Lys Phe
1 5

<210> 1421
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1421

Arg Ala Ser
1

<210> 1422
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1422

Gln Cys Thr Tyr Gly Gly Thr Ser Gly Ser Val Trp Ala
1 5 10

<210> 1423
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1423

Gly Phe Ser Phe Ser Ser Ser Phe Tyr
1 5

<210> 1424
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1424

Ile Tyr Ala Glu Asp Ser Asp Tyr Thr
1 5

<210> 1425
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1425

Ala Arg Glu Ile Leu Tyr Pro Thr Asn Thr Asp Ser Phe Asp Leu
1 5 10 15

<210> 1426
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1426

Glu Ser Phe Ser Ser Arg
1 5

<210> 1427
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1427

Arg Ala Ser
1

<210> 1428
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1428

Gln Ala Tyr Val Gly Ile Ser Ser Gly Gly Tyr Ala
1 5 10

<210> 1429
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1429

Gly Phe Ser Phe Ser Ser Ser Tyr Trp
1 5

<210> 1430
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1430

Ile Ser Ala Pro Gly Ser Gly Ser Thr
1 5

<210> 1431
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1431

Ala Arg Phe Tyr Ala Gly Gly Ser Gly Asp Tyr Phe Asp Leu
1 5 10

<210> 1432
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1432

Gln Asn Ile Gly Ser Tyr
1 5

<210> 1433
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1433

Thr Thr Ser
1

<210> 1434
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1434

Leu Gly Val Tyr Gly Tyr Ser Ser Asp Asp Val Ala
1 5 10

<210> 1435
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1435

Gly Ile Asp Leu Ser Asp Tyr Ala
1 5

<210> 1436
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1436

Ile Asn Ile Gly Gly Ile Ser
1 5

<210> 1437
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1437

Ala Arg Glu Gly Tyr Thr Thr Gly Gly Gly Gly Pro Tyr Tyr Gly Met
1 5 10 15

Asp Leu

<210> 1438
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1438

Gln Ser Ile His Ser Trp
1 5

<210> 1439
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1439

Thr Ala Ser
1

<210> 1440
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1440

Gln Arg Asn Ser Tyr Ser Asp Phe Asn Asn Tyr Val
1 5 10

<210> 1441
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1441

Gly Phe Ser Phe Ser Ser Ser Asp Tyr
1 5

<210> 1442
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1442

Met Tyr Thr Gly Ser Val Glu His Thr
1 5

<210> 1443
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1443

Ala Arg Ser Pro Thr Gly Tyr Pro Asp Tyr Gly Tyr Gly Gly Phe Ser
1 5 10 15

Leu

<210> 1444
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1444

Gln Asn Ile Tyr Ser Asn
1 5

<210> 1445
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1445

Gly Ala Ser
1

<210> 1446
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1446

Gln Ser Ala Tyr Tyr Ser Gly Gly Pro Asp Met Ala
1 5 10

<210> 1447
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1447

Gly Phe Tyr Leu Ser Ser His Tyr
1 5

<210> 1448
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1448

Ile Tyr Ala Thr Gly Ile Ala
1 5

<210> 1449
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1449

Ala Arg Tyr Asp Ser Gln Asp Tyr Tyr Gly Tyr Gly Asn Leu
1 5 10

<210> 1450
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1450

Gln Asn Ile Tyr Asn Asn
1 5

<210> 1451
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1451

Arg Ala Ser
1

<210> 1452
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1452

Gln Gln Gly Tyr Ser Val His Asp Val Tyr Asn Thr
1 5 10

<210> 1453
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1453

Gly Phe Ser Leu Ser Gly Tyr His
1 5

<210> 1454
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1454

Ile Gly Ser Asn Gly Val Thr
1 5

<210> 1455
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1455

Ala Arg Ser Ser Gly Trp Gly Ala Arg Phe Asn Leu
1 5 10

<210> 1456
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1456

Gln Ser Val Tyr Asn Asp Asn Glu
1 5

<210> 1457
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1457

Lys Ala Ser
1

<210> 1458
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1458

Leu Gly Gly Gly Ser Thr Pro Ser Asp Ser Thr
1 5 10

<210> 1459
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1459

Gly Phe Thr Ile Ser Ser Tyr His
1 5

<210> 1460
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1460

Ile Gly Ser Asn Gly Asn Thr
1 5

<210> 1461
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1461

Ala Arg Ser Ser Gly Trp Gly Ala Arg Phe Asn Leu
1 5 10

<210> 1462
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1462

Gln Ser Val Tyr Asn Asp Asn Glu
1 5

<210> 1463
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1463

Lys Ala Ser
1

<210> 1464
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1464

Leu Gly Gly Gly Ser Thr Pro Ser Asp Ser Thr
1 5 10

<210> 1465
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1465

Gly Phe Ser Leu Asn Asn Ala His
1 5

<210> 1466
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1466

Ile Gly Ala Ser Gly Ser Thr
1 5

<210> 1467
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1467

Gly Arg Thr Asp Val Gly Tyr Thr Thr Ala Asn Leu
1 5 10

<210> 1468
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1468

Gln Thr Ile Ser Ser Tyr
1 5

<210> 1469
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1469

Ser Ala Ser
1

<210> 1470
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1470

Gln Ala Tyr Asp Thr Thr Ser Gly Thr Asp Leu Trp Ala
1 5 10

<210> 1471
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1471

Gly Phe Ser Phe Ser Ser Asp Tyr Asp
1 5

<210> 1472
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1472

Ile Ile Gly Gly Ser Ser Asp Ser Thr
1 5

<210> 1473
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1473

Ala Arg Asn Val Gly Phe Ser Tyr Tyr Asp Leu
1 5 10

<210> 1474
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1474

Gln Ser Leu Tyr Asn Asn Lys Asn
1 5

<210> 1475
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1475

Tyr Ala Ser
1

<210> 1476
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1476

Gln Gly Glu Phe Ser Cys Ser Ser Gly Asp Cys Phe Ala
1 5 10

<210> 1477
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1477

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1478
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1478

Ile Tyr Ser Ser Gly Ser Thr
1 5

<210> 1479
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1479

Ala Arg Tyr Ser Ala Ala Asp His Gly Asp Lys Phe Lys Leu
1 5 10

<210> 1480
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1480

Lys Asn Ile Phe Asp Asn Thr Arg
1 5

<210> 1481
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1481

Gly Ala Ser
1

<210> 1482
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1482

Leu Gly Glu Tyr Ser Ser Asp Ser Asp Thr Ser
1 5 10

<210> 1483
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1483

Gly Phe Ser Leu Ser Thr Tyr Tyr
1 5

<210> 1484
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1484

Ile Tyr Thr Ser Gly Ser Thr
1   5

<210> 1485
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1485

Ala Arg Ser Arg Val Pro Gly Asp Thr Thr Gly Leu Tyr Tyr Phe Asn
1   5   10   15

Leu

<210> 1486
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1486

Glu Asn Ile Tyr Ser Asn
1   5

<210> 1487
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1487

His Thr Ser
1

<210> 1488
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1488

Gln Ser Ala Tyr Asp Ser Ser Ser Ser Asp Thr Phe Thr
1 5 10

<210> 1489
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1489

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Ser Ser Gly Val Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65 70 75 80

Gly Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Pro
85 90 95

Gly Tyr Ser Thr Gly Trp Asp Tyr Phe Phe Arg Leu Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 1490
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1490

Ala Ile Lys Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Ser Ile Asn Cys Gln Ala Ser Glu Asp Ile Glu Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asp Leu Pro Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Lys Gln Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln His Gly Ala Tyr Thr Ser Ser
85 90 95

Ser Asp Phe Phe Tyr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1491
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1491

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Arg Tyr Tyr
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Phe Ile Asn Thr Ala Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Leu
85 90 95

Ser Arg Phe Ser Leu Trp Gly Arg Gly Thr Leu Val Ile Val Ser Ser
100 105 110

<210> 1492
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1492

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Pro Ser Val Tyr Ser Asp
20 25 30

Tyr Leu Ser Trp Phe Gln Lys Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

Ile Tyr Trp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu
65 70 75 80

Ser Asp Asp Val Ala Thr Tyr Tyr Cys Ala Gly Gly Tyr Ser Gly Asn
85 90 95

Ser Asp Asn Trp Ala Phe Gly Gly Gly Thr Asp Val Val Val Lys
100 105 110

<210> 1493
<211> 112
<212> PRT
<213> Artificial Sequence

<220>

<223> VH

<400> 1493

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Gly
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Thr Ile Ser Tyr Gly Gly Ser Thr Phe Tyr Ala Asn Trp Val Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Val Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Ala Ala Thr Tyr Phe Cys Ala Arg Glu Val
                85                  90                  95

Pro Tyr Trp Ser Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 1494
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1494

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Ala Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Asp
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Arg Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60
```

```
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Val Gln Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Val Tyr Cys Gln Gln Asp Tyr Ser Tyr Arg Asn
                85                  90                  95


Val Asp Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1495
<211>  116
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1495

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Gly
            20                  25                  30


Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Ile Ile Asp Ala Gly Asp Ser Pro Tyr Tyr Ala Ser Trp Val Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ile Ala
                85                  90                  95


Gly Ser Asn His Gly Pro Phe Ser Leu Trp Gly Pro Gly Thr Leu Val
            100                 105                 110


Thr Val Ser Ser
        115


<210>  1496
<211>  109
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VL

<400> 1496

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Phe Ile Ser Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Ala Tyr Gly Ser Gly
85 90 95

Tyr Val Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 1497
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1497

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu His Asn Tyr Asn
20 25 30

Ile Gln Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Trp Ile Leu Thr Asp Gly Ser Pro Tyr Cys Ala Asn Trp Ala Lys Gly
50 55 60

```
Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Met Gly
                85                  90                  95

Asp Tyr Asn Ile Asn Gly Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 1498
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1498

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Arg Ile Tyr Asn Asn
            20                  25                  30

Asp Phe Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Ala Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Gly Tyr Ser Ser
                85                  90                  95

Ser Gly Trp Tyr Leu Pro Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1499
<211> 122

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1499

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Ile Asp Leu Asn Asn Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Gly Ala Gly Tyr Thr Tyr Tyr Thr Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ile Tyr
85 90 95

Asp Ser Tyr Gly Tyr Ala Tyr Val Pro Tyr Tyr Asp Met Asp Leu Trp
100 105 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1500
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1500

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Thr Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Phe Met Asn
20 25 30

```
Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Thr Leu Ala Ser Arg Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Ala Tyr Tyr Cys Leu Gly Gly Tyr Asp Asp
                85                  90                  95

Asp Ser Ala Thr Thr Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100                 105                 110
```

<210> 1501
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1501

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Phe
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
            20                  25                  30

Met Asn Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Ser Asp Asp Ile Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Thr Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Val Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Asp
                85                  90                  95

Gly Asp Arg Ser Ile Trp Ser Phe Asp Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110
```

Val Thr Val Ser Ser
        115

<210> 1502
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1502

Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1   5   10   15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Trp Asn Asn
            20   25   30

Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Asn Leu
        35   40   45

Leu Ile Tyr Glu Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
    50   55   60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Val Ser Glu Val
65   70   75   80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Gly Tyr Tyr Asp
                85   90   95

Ser Ser Pro Ile Trp Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105   110

<210> 1503
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1503

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1   5   10   15

Gln Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
            20   25   30

```
Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Ser Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Ala
                85                  90                  95

Tyr Pro Ser Tyr Ser Pro Phe Gly Tyr Tyr Phe Thr Leu Trp Gly Gln
            100                 105                 110

Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 1504
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1504

```
Ala Ile Lys Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Ser Ile Asn Cys Gln Ala Ser Glu Asp Ile Tyr Asn Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Lys Gln Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln His Gly Tyr Phe Thr Tyr Ser
                85                  90                  95
```

Gly Glu Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1505
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1505

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ser Tyr
20 25 30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Cys Ile Tyr Thr Gly Asp Gly Ala Ser Tyr Tyr Ala Ser Trp Ala
50 55 60

Lys Gly Arg Phe Thr Ile Ser Lys Pro Ser Ser Thr Thr Val Thr Leu
65 70 75 80

Gln Val Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Gly
85 90 95

Arg Gly Glu Tyr Asp Asn Asp Trp Gly Phe Gly Leu Trp Gly Pro Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 1506
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1506

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Ser Ser Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Glu Leu Leu Ile
        35                  40                  45

Tyr Tyr Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Arg Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Ser Asn Tyr Gly Gly Ser
                85                  90                  95

Trp Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  1507
<211>  118
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1507

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Ser Trp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Phe Ile Gly
        35                  40                  45

Phe Ile Asn Thr Gly Gly Arg Ala Phe Tyr Ala Thr Trp Ala Ser Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Lys Val Asp Leu Glu Ile Thr
65                  70                  75                  80
```

Ser Pro Thr Ser Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Gly Ala
85 90 95

Ala Gly Tyr Pro Glu Tyr Asp Asp Gly Asp Leu Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 1508
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1508

Ala Gln Val Leu Thr Gln Thr Leu Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Pro Ser Val Tyr His Asn
20 25 30

Asn Trp Leu Ser Trp Phe Gln Lys Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Glu Ala Ser Lys Leu Ala Ser Gly Val Pro Pro Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Ser Phe Ser Asp
85 90 95

Asn Ile Tyr Thr Phe Gly Gly Gly Thr Ala Met Val Val Lys
100 105 110

<210> 1509
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1509

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Gly Tyr Asp
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Tyr Ile Tyr Ala Gly Ser Thr Tyr Tyr Ala Asn Trp Ala Lys Gly Arg
50 55 60

Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr Ser
65 70 75 80

Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Thr Arg Val Gly Ala
85 90 95

Gly Tyr Ser Gly Val Trp Ala Tyr Phe Asn Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 1510
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1510

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Asp Ser Asp
20 25 30

Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Asp Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

```
Thr Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80


Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Tyr Gly Asn
                85                  90                  95


Ile Gly Trp Tyr Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1511
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1511

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Thr
            20                  25                  30


Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45


Ile Ile Gly Thr Ser Gly Thr Thr Tyr Tyr Ser Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Leu Gly
                85                  90                  95


Asp Asp Tyr Gly Asp Phe His Phe Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110


Val Thr Val Ser Ser
        115


<210>  1512
<211>  109
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1512

Asp Leu Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Asp Ser Thr
85 90 95

Tyr Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 1513
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1513

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Ser Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Ile Ile Gly Tyr Asn Asp Phe Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
                85                  90                  95

Ser Ser Ser Tyr Ser Asp Tyr Val Phe Asp Pro Trp Gly Pro Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115


<210>  1514
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1514

Ala Phe Glu Met Thr Gln Thr Pro Ser Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Tyr Ser Asn
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Tyr Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Gly Ile Ser Ser
                85                  90                  95

Tyr Gly Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1515
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1515

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Tyr
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Ser Leu Glu Trp Ile Gly
35 40 45

Cys Ile His Gly Asp Asp Gly Ser Thr Trp Tyr Ala Ser Trp Val Gln
50 55 60

Gly Arg Phe Thr Ile Ser Lys Ala Ser Thr Thr Val Asp Leu Gln Ile
65 70 75 80

Ala Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
85 90 95

Leu Pro Tyr Trp Pro Asn Asp Gly Asp Phe Asn Leu Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 1516
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1516

Thr Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Gln Ser Val Tyr Asn Asn
20 25 30

```
Asn Trp Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Val Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Tyr Tyr Thr
                85                  90                  95

Thr Ser Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1517
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1517

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Trp Ile Asn Thr Ala Gly Gly Thr Asp Tyr Thr Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Val Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr Asp
                85                  90                  95

Tyr Tyr Tyr Phe Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
```

Ser

<210> 1518
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1518

```
Ala Gln Val Leu Thr Gln Thr Ala Ser Ser Val Ser Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Tyr Asp Asn
            20                  25                  30

Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80

Glu Ser Asp Asp Ala Ala Ala Tyr Tyr Cys His Gly Val Tyr Ser Gly
                85                  90                  95

Ser Ile His Ala Phe Gly Gly Gly Thr Glu Val Val Val Ile
            100                 105                 110
```

<210> 1519
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1519

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15
```

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Tyr Tyr
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Ile Ile Gly Ser Gly Val Ser Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Ala Ser Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp
                85                  90                  95

Met Tyr Val Gly Asn Trp Gly Asp Trp Gly Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115


<210>  1520
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1520

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Asn Asn
            20                  25                  30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Val Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80
```

```
Val Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Arg Ile Gly Asp
                85                  90                  95

Leu Asp Ser Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1521
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1521

```
Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1               5                  10                  15

Ser Leu Thr Val Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Asn Ser
            20                  25                  30

Tyr Trp Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Tyr Leu Gly Ser Ala Gly Thr Thr His His Ala Thr
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Thr Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Ala Arg Ala Gly His Asp Tyr Trp Gly Ala Tyr His Thr Leu Trp
            100                 105                 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 1522
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1522

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Ser Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Asp Asn Thr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Ala Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr His Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Arg Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Pro Tyr Tyr Gly Ser Thr
85 90 95

Tyr Val Tyr Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1523
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1523

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Asn His Gly
20 25 30

Met Gly Trp Phe Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Tyr Ile Asp Gly Gly Ala Ser Tyr Ala Ser Trp Val Asn Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Ile
                85                  90                  95


Pro Ser Asp Gly Asp Ser Ser Tyr Tyr Tyr Phe Asn Leu Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ala Ser
        115                 120


<210>  1524
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1524

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Val Tyr Asn Lys
            20                  25                  30


Tyr Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45


Ile Tyr Arg Ala Ser Thr Leu Glu Ser Gly Val Ser Ser Arg Phe Lys
    50                  55                  60


Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu
65                  70                  75                  80


Ser Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Asn Asn Gly Ala Gly
                85                  90                  95


Asp Asn Thr Asp Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1525
<211>  122
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VH

<400> 1525

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Arg Tyr Ala
20 25 30

Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Ser Ser Gly Thr Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Ile Tyr Phe Cys Ala Arg Ala Ile
85 90 95

Ala Gly Asp Ala Gly Tyr Val Tyr Ala Ile Asp Trp Leu Asp Leu Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1526
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1526

Asp Pro Val Leu Thr Gln Thr Pro Ser Ser Ala Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Tyr Ile Ser Asn Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Phe Gly Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Gly Tyr Phe Ser Ser Ser
                85                  90                  95

Thr Thr Tyr Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Arg
            100                 105                 110
```

<210> 1527
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1527

```
Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1               5                   10                  15

Leu Thr Leu Pro Cys Thr Ala Ser Gly Phe Thr Leu Ser Gly Tyr Trp
            20                  25                  30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Cys Ile Tyr Asn Gly Asp Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu Gln
65                  70                  75                  80

Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95

Asp Ser Asn Gly Trp Gly Ala Tyr Gly Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 1528
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1528

Ala Ile Glu Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asp Cys Gln Ala Ser Gln Ser Ile Gly Ser Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Gly Tyr Tyr Ser Ser Ala
85 90 95

Thr Glu Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1529
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1529

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

```
Val Ile Ser Thr Ser Ala Asn Thr Tyr Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Val Val
                85                  90                  95

Gly Leu Tyr Asp Ser Tyr Gly Asp Val Asp Ala Thr Tyr Asp Ala Phe
            100                 105                 110

Asp Pro Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 1530
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1530

```
Ala Gln Val Leu Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Asp Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

Asn Leu Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Val Tyr Asp Ala Ser Asn Leu Ala Ser Gly Val Pro His Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Asp Asp
                85                  90                  95

Asp Ala Asp Ile Tyr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1531
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1531

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Ser Tyr Asp
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Phe Ile Ser Ala Ser Gly Ser Ile Tyr Phe Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Ser Asp Ser
85 90 95

Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 1532
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1532

Ala Val Val Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Asn Cys Arg Ala Ser Glu Asp Ile Gly Ser Tyr
            20                  25                  30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Met
        35                  40                  45

His Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Trp Tyr Ser Ser Gly
                85                  90                  95

Thr Asp Lys Met Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1533
<211>  113
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1533

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Ser Phe Ser Ser Ala
            20                  25                  30

Asn Cys Met His Trp Val Arg Gln Ala Pro Glu Lys Gly Leu Gln Trp
        35                  40                  45

Ile Gly Cys Val Cys Ile Gly Asp Gly Thr Thr Tyr Tyr Ala Ser Trp
    50                  55                  60

Val Asn Gly Arg Phe Ser Ile Ser Ala Thr Ser Ser Thr Thr Val Thr
65                  70                  75                  80

Ile Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95
```

```
Ala Arg Asp Leu Gly Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser
            100                 105                 110


Ser
```

<210> 1534
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1534

```
Ala Ile Val Met Thr Gln Thr Pro Ser Ser Lys Ser Val Pro Val Gly
1               5                  10                  15


Asp Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Val Asp Lys Tyr
            20                  25                  30


Thr Gln Cys Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45


Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60


Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80


Val Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ser Gly Tyr Lys Gly Gly
                85                  90                  95


Ser Ala Asp Met Ile Ala Phe Gly Gly Gly Thr Glu Leu Val Val Thr
            100                 105                 110
```

<210> 1535
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1535

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15
```

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Tyr Ala
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ala
        35                  40                  45

Ile Ile Ser Gly Ser Gly Ser Thr Asn Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Leu Ser Lys Ala Ser Thr Thr Val Ala Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Gly Arg
                85                  90                  95

Asp Asp Asp Tyr Ala Trp Asp Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115


<210>  1536
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1536

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Thr Ile Ser Asn Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Arg Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Ser Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Ala Asp Ala Ala Thr Tyr Tyr Cys His Cys Thr Tyr Tyr Asp Ser Ser
                85                  90                  95

Tyr His Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105

<210>  1537
<211>  123
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1537

Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Ala
            20                  25                  30

Tyr Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Asp Ala Gly Ser Ser Gly Ser Thr Tyr Tyr Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Ala Arg Asp Gly Gly Ser Thr Thr Gly Tyr Gly Trp Leu Asp Leu
            100                 105                 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120

<210>  1538
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 1538

Ala Val Val Met Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Gly Thr Asn
20 25 30

Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu
35 40 45

Ile Tyr Glu Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Lys
50 55 60

Gly Ser Gly Ser Gly Thr Glu Tyr Ser Leu Thr Ile Ser Asp Leu Glu
65 70 75 80

Ser Ala Asp Ala Ala Thr Tyr Tyr Cys Leu Tyr Ser Tyr Tyr Ser Ser
85 90 95

Ser Ser Ala Tyr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1539
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1539

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Asn
20 25 30

Val Ala Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Gln Tyr Ile Gly
35 40 45

Ile Met Ala Phe Asp Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Thr Gly
50 55 60

```
Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asn Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Cys Lys Gly Asp
                85                  90                  95


Pro Ser Ser Asp Thr Gly Thr Thr Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110


Thr Val Ser Ser
        115


<210>  1540
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1540

Ala Ala Val Leu Thr Gln Thr Pro Ser Ser Ala Ser Glu Pro Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ser Ser Pro Ser Val Tyr Ser Asn
            20                  25                  30


Asn Trp Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu
        35                  40                  45


Leu Ile Tyr Ala Ala Ala Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60


Arg Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80


Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Phe Asn Ser
                85                  90                  95


Asp Ser Asp Thr Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1541
<211>  115
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VH

<400> 1541

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1   5   10   15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ile Asn Tyr Asn
            20   25   30

Met Gly Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35   40   45

Thr Ile Leu Thr Asp Gly Thr Val Tyr Tyr Ser Asn Trp Ala Lys Gly
    50   55   60

Gln Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Glu Met Thr
65   70   75   80

Ser Pro Thr Asn Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Tyr
                85   90   95

Pro Ser Tyr Ile Ala Phe Asp Leu Trp Gly Pro Gly Thr Leu Val Thr
            100   105   110

Val Ser Ser
        115

<210> 1542
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1542

Ala Gln Val Leu Thr Gln Thr Ala Ser Ser Val Ser Ala Ala Val Gly
1   5   10   15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asp
            20   25   30

Asp Asn Leu Ala Trp Leu Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35   40   45

```
Leu Ile Tyr Gly Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Glu Asp Ala Ala Ile Tyr Tyr Cys Gln Gly Gly Gly Phe Ser
                85                  90                  95

Ser Gly Trp Tyr Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1543
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1543

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Lys Val Ser Gly Phe Ser Leu Ser Thr Tyr Asp
            20                  25                  30

Met Ile Trp Val Arg Gln Ala Pro Ala Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Ile Ile Gly Gly Ser Gly Phe Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asn Asn
                85                  90                  95

Tyr Asp Met Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110
```

<210> 1544
<211> 111

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1544

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Asn Glu
20 25 30

Leu Ala Trp His Gln Gln Lys Pro Gly Gln Arg Pro Asn Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Gly Ser Ser
85 90 95

Tyr Val Gly Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1545
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1545

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Gly Ser Tyr Pro
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Tyr Ile Asp Pro Gly Arg Gly Thr Thr Leu Tyr Ala Ser Trp Ala Arg
    50                  55                  60

Gly Leu Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Ala Met
65                  70                  75                  80

Thr Ser Pro Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser
                85                  90                  95

Tyr Pro Gly Asp Gly Ala Gly Asp Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115
```

<210> 1546
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1546

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Asn Tyr
            20                  25                  30

Phe Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Thr Leu Glu Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Gly Ser Gly
                85                  90                  95

Asp Val Gly Gly Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1547
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1547

Gln Glu Gln Leu Lys Glu Thr Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Thr Leu Ser Cys Lys Ala Ser Gly Phe Asp Phe Ser Ser Gly
20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Asp Pro Val Phe Gly Ser Thr Tyr Tyr Ala Ser Trp Val
50 55 60

Asn Gly Arg Phe Ala Ile Ser Ser His Asn Ala Gln Asn Thr Leu Tyr
65 70 75 80

Leu Gln Leu Asn Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Asp Leu Arg Ala Phe Tyr Ser Gly Trp Gly Gly Ile Asn Leu
100 105 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1548
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1548

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ser Ser Gln Ile Val Val Asn Asn
20 25 30

```
Asn Phe Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Asp Asp
                85                  90                  95

Asp Ala Glu Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Gln
            100                 105                 110
```

<210> 1549
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1549

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Ser Tyr Asp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Phe Ile Ser Ala Ser Gly Ser Ile Tyr Phe Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Ser Asp Ser
                85                  90                  95

Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu Trp Gly Pro Gly Thr
            100                 105                 110
```

Leu Val Thr Val Ser Ser
        115

<210> 1550
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1550

Ala Val Val Leu Thr Gln Thr Pro Ala Ser Val Ser Pro Ala Val Gly
1   5   10   15

Gly Thr Val Thr Ile Asn Cys Arg Ala Ser Glu Asp Ile Gly Ser Tyr
            20   25   30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Met
        35   40   45

His Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65   70   75   80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Trp Tyr Ser Ser Asn
                85   90   95

Thr Asp Lys Met Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105   110

<210> 1551
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1551

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Lys Pro Gly Glu Ser
1   5   10   15

```
Leu Thr Leu Thr Cys Thr Val Ser Glu Phe Ser Leu Ser Ser Asn Ala
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Phe Ile Gly
        35                  40                  45

Leu Ile Asp Ser Gly Gly Asp Ala Tyr Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys Ala
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Gly
                85                  90                  95

Tyr Trp Phe Pro Arg Leu Gly Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115


<210>  1552
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1552

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Ser Ile Asn Cys Gln Ser Thr Lys Asn Val Tyr Leu Asn
            20                  25                  30

Asn Trp Leu Gly Trp Phe Gln Lys Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80
```

```
Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Ala Tyr Asp Asp
                85                  90                  95

Asn Ser Asp His Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1553
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1553

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Glu Gly
1               5                  10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Asn Val Asp
            20                  25                  30

Tyr Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Ala Cys Ile Tyr Val Gly Ser Glu Gly Ser Thr Tyr Tyr Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95

Cys Ala Arg His Tyr Ala Gly Tyr Ala Gly Tyr Asn Tyr Ala Thr Asp
            100                 105                 110

Tyr Tyr Phe Thr Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 1554
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1554

Asp Ile Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Gly Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Thr Asn Phe
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Met Lys Ala
65 70 75 80

Glu Asp Val Ala Thr Tyr Tyr Cys Gln Ser Gly Tyr Tyr Ser Ala Thr
85 90 95

Phe Gly Ala Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1555
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1555

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Val Ser Trp Val Arg Gln Ala Pro Trp Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Ser Gly Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Thr Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Ile
                85                  90                  95


His Ser Tyr Asp Asp Tyr Leu Gly Tyr Lys Leu Trp Gly Pro Gly Thr
            100                 105                 110


Leu Val Thr Val Ser Ser
        115


<210>  1556
<211>  108
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1556

Ala Ile Glu Met Thr Gln Ser Pro Pro Ser Leu Ser Ala Ser Val Gly
1               5                   10                  15


Glu Thr Val Arg Ile Arg Cys Leu Ala Ser Glu Phe Leu Phe Asn Ala
            20                  25                  30


Val Ser Trp Tyr Gln Gln Lys Pro Glu Lys Pro Pro Thr Leu Leu Ile
        35                  40                  45


Ser Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Pro Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Gly Gly Val Gln Ala
65                  70                  75                  80


Glu Asp Val Ala Ala Tyr Tyr Cys Leu Gly Gly Tyr Lys Arg Ala Asp
                85                  90                  95


Leu Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys
            100                 105


<210>  1557
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VH

<400> 1557

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Asp Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ser Ile Tyr Thr Ser Gly Thr Pro Tyr Tyr Ala Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gln Ser
85 90 95

Gly Ile Asp Asn Tyr Trp Leu Phe Thr Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Cys Val Ser Ser
115

<210> 1558
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1558

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Gly Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ala Ser Gly
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

```
Tyr Ser Ala Ser Ser Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Asn Tyr Tyr Cys Gln Gln Gly Tyr Thr Ser Thr Asn
                85                  90                  95

Leu His Asn Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1559
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1559

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Asn Cys Thr Ala Ser Gly Phe Ser Leu Ser Ala Tyr Trp
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Ala Thr Gly Ser Thr Tyr Tyr Thr Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Gly Arg Gly Asp
                85                  90                  95

Gly Tyr Glu Ser Leu Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 1560
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1560

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Tyr Ser Asn
20 25 30

Asn Leu Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Arg
35 40 45

Leu Ile Tyr Gly Ala Ser Thr Leu Asp Ser Gly Val Ser Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Met
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Tyr Tyr Ser Gly
85 90 95

Gly Ile Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1561
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1561

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Tyr
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Ile Ile Asp Thr Gly Ser Gly Asp Thr Trp Tyr Ala Thr Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Val
                85                  90                  95

Asn Pro Glu Phe Ala His Val Trp Pro Tyr Tyr Phe Asp Leu Trp Gly
            100                 105                 110

Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 1562
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1562

```
Ala Leu Val Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Ser Asn
            20                  25                  30

Phe Leu Ser Trp Tyr Gln Gln Asn Pro Gly Gln Pro Pro Lys Leu Leu
        35                  40                  45

Ile Asp Arg Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys
    50                  55                  60

Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu
65                  70                  75                  80

Ser Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Asp Ser Leu Ser
                85                  90                  95

Asn Val Glu Asn Ala Phe Gly Gly Gly Thr Glu Leu Val Val Lys
            100                 105                 110
```

<210> 1563
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1563

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Tyr Asn
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
35 40 45

His Ile Ser Thr Asp Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Gly Thr Tyr Phe Cys Ala Arg Leu Tyr
85 90 95

Tyr Arg His Gly Tyr Ala Leu Asn Leu Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 1564
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1564

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Val Gly Ser Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Ser Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Val Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys His Cys Thr Tyr Gly Ser Asn Ile
                85                  90                  95

Thr Ala Asn Trp Gly Thr Phe Gly Gly Gly Thr Gly Val Val Val Lys
            100                 105                 110
```

<210> 1565
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1565

```
Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Asp Phe Asn Asn Asn
            20                  25                  30

Ala Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Ala Cys Ile Tyr Asp Gly Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp
    50                  55                  60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Ser Thr Val Thr
65                  70                  75                  80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95
```

```
Ala Arg Ala Tyr Ala Ala Tyr Thr Val Tyr Asp Tyr Ala Phe Asn Leu
            100                 105                 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 1566
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1566

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Asp
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Tyr Thr Thr Asn Leu Glu Thr Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Tyr Ala Asp Arg Ser Ser Tyr
                85                  90                  95

Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 1567
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1567

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15
```

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Arg Tyr Thr
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Ile Ile Tyr Gly Asp Asp Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Leu Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Ser Cys
                85                  90                  95

Ala Pro Ile Tyr Tyr Asn Thr Phe Ser Phe Asn Leu Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ala
        115
```

<210> 1568
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1568

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Thr Ile Gly Gly Ser
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ala Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80
```

```
Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln His Tyr Thr Gly Asp Asn
                85                  90                  95


Val Asn Asn Pro Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1569
<211>  116
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1569

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Arg Tyr His
            20                  25                  30


Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45


Tyr Ile His Thr Asp Asp Thr Asn Trp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Val Ser
                85                  90                  95


Ser Val Gly Gly Tyr Tyr Phe Asp Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110


Thr Val Ser Ser
        115


<210>  1570
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 1570

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asp Ile Tyr Asn Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Asn Tyr Leu Ile Ser Ser
                85                  90                  95

Tyr Gly Val Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1571
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1571

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Gly Tyr Asp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Tyr Ile Tyr Gly Gly Asn Thr Tyr Tyr Ala Asn Trp Ala Lys Gly Arg
    50                  55                  60
```

```
Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr Ser
65                  70                  75                  80


Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Thr Arg Val Gly Ala
                85                  90                  95


Gly Tyr Ser Gly Val Trp Ala Tyr Phe Asn Leu Trp Gly Pro Gly Thr
            100                 105                 110


Leu Val Thr Val Ser Ser
        115


<210>  1572
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1572

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Asp Ser Asp
            20                  25                  30


Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45


Leu Ile Tyr Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60


Thr Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80


Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Thr Tyr Tyr Asn
                85                  90                  95


Ala Gly Trp Tyr Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1573
<211>  119
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VH

<400> 1573

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Thr Asn Tyr Ala
20 25 30

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Phe Ile Asn Tyr Asp Gly Asn Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
85 90 95

Asp Gly Tyr Thr His Ile Pro Asp Thr Phe Asp Pro Trp Gly Pro Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 1574
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1574

Ala Phe Glu Met Thr Gln Thr Pro Ser Ser Val Ser Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Tyr Ser Tyr
20 25 30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Val Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Tyr Ser Asn
                85                  90                  95

Ile Asp Asn Val Phe Gly Gly Gly Thr Glu Met Val Val Lys
            100                 105                 110
```

<210> 1575
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1575

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Asp Leu Ser Ser Tyr Tyr
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Thr Asp Ser Ser Ala Ser Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Leu
                85                  90                  95

Val Val Ser Thr Asp Asn Tyr Asn Leu Trp Gly Pro Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115
```

<210> 1576
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1576

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Tyr Asn Asn
20 25 30

Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Tyr Thr Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Asn Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Asp Val Gly Gly
85 90 95

Gly Met Arg Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1577
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1577

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Ala Ala Ser Gly Phe Ser Leu Asn Asn Trp Val
20 25 30

```
Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ala
        35                  40                  45

Cys Ile Asp Ile Val Gly Ser Gly Ser Thr His Tyr Ala Thr Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Met Ser Lys Ala Ser Ser Ile Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95

Arg Gly Val Asn Gly Asp Gly Asn Leu Asn Leu Trp Gly Pro Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 1578
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1578

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Ala Val Thr Ile Lys Cys Gln Ala Ser Glu Thr Ile Ser Asn Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Val Gly Asp Ser
                85                  90                  95
```

Tyr Thr Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 1579
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1579

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Pro Ser Gly Asn Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Gly
85 90 95

Ala Leu Tyr Asp Asp Tyr Gly Asp Tyr Val Asp Ala Phe Asp Pro Trp
100 105 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1580
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1580

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Glu Ser Val Tyr Asn Asn
            20                  25                  30

Asn Trp Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Tyr Ser Ser
                85                  90                  95

Ser Ser Asp Ile Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1581
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1581

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Leu Ser Phe Ser Gly Ser
            20                  25                  30

Tyr Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Ile Gly Cys Ile Thr Ala Gly Ile Ser Gly Ser Thr Tyr Tyr Ala Ser
    50                  55                  60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65                  70                  75                  80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
                85                  90                  95
```

```
Cys Ala Arg Glu Arg Thr Gly Gly Trp Gly Asp Phe Asn Leu Trp Gly
            100                 105                 110


Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  1582
<211>  111
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1582

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Thr Thr Tyr
            20                  25                  30


Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Leu Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60


Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Asp Gly Gly Ile Asn
                85                  90                  95


His Trp Phe Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1583
<211>  120
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1583
```

```
Gln Gln Arg Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Ala
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Gly
            20                  25                  30

Tyr Asp Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Val Gly Cys Ile Asp Thr Ala Thr Asp Thr Ile Tyr Tyr Ala Ser Trp
    50                  55                  60

Ala Pro Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Met Val Thr
65                  70                  75                  80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Ser Val Gly Gly Val Asp Tyr Ala Ile Asp Leu Trp Gly Pro
            100                 105                 110

Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  1584
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1584

Ala Tyr Asp Met Thr Gln Thr Pro Val Ser Val Glu Val Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Ser Arg
            20                  25                  30

Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Phe Leu Ile
        35                  40                  45

Tyr Tyr Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60
```

```
Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val Gln Ser
65                  70                  75                  80


Asp Asn Ala Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Tyr Ser Asp
                85                  90                  95


Val Asp Asp Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1585
<211>  115
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1585

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Ala
            20                  25                  30


Met Ile Trp Val Arg Gln Ala Pro Gly Glu Gly Pro Glu Trp Ile Gly
        35                  40                  45


Leu Ile Ala Gly Gly Gly Asn Thr Trp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Asp
                85                  90                  95


Tyr Leu Gly Tyr Gly Asn Asn Phe Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110


Val Ser Ser
        115


<210>  1586
<211>  111
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VL

<400> 1586

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
20 25 30

Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Trp Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Ser Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Val Tyr Asp Asp
85 90 95

Asp Ala Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1587
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1587

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

Tyr Ile Ser Tyr Asp Gly Ser Thr Tyr Tyr Ala Ser Trp Val Lys Gly
50 55 60

```
Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80


Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Arg
                85                  90                  95


Ile Asp Asp Gly Tyr Gly Asn Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110


Val Ser Ser
        115


<210>  1588
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1588

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Asn Tyr
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ala Ala Ser Tyr Leu Ala Ser Gly Val Pro Ser Arg Phe Arg Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Val Ala Ser Thr
                85                  90                  95


Tyr Val Gly Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1589
<211>  110
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1589

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Thr Tyr Tyr
20 25 30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Asp Ile Tyr Val Arg Gly Gly Ala Arg Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Gly
85 90 95

Leu Ser Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 1590
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1590

Ala Gln Val Leu Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Tyr Lys Asn
20 25 30

Asn Arg Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

```
Leu Ile Tyr Glu Thr Ser Lys Leu Glu Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Asp Cys
                85                  90                  95

Gly Ser Ala Asp Cys Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 1591
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1591

```
Gln Gln Leu Glu Gln Ser Ala Gly Gly Ala Glu Gly Gly Leu Val Lys
1               5                   10                  15

Pro Gly Gly Ser Leu Glu Leu Cys Cys Lys Ala Ser Gly Phe Ser Leu
            20                  25                  30

Asn Asn Asn Tyr Trp Ile Cys Trp Val Arg Gln Ala Pro Gly Lys Gly
        35                  40                  45

Leu Glu Trp Ile Gly Cys Ile Tyr Val Gly Val Val Ser Leu Thr Tyr
    50                  55                  60

Ser Ala Ser Trp Val Asn Gly Arg Phe Thr Leu Ser Lys Asp Ile Asp
65                  70                  75                  80

Gln Ser Thr Gly Cys Leu Gln Leu Asn Ser Leu Thr Ala Ala Asp Thr
                85                  90                  95

Ala Met Tyr Tyr Cys Ala Arg Ser Leu Tyr Ser Gly Tyr Ala Gly Tyr
            100                 105                 110
```

```
Gly Asp Gly Tyr Tyr Gly Met Asp Leu Trp Gly Pro Gly Thr Leu Val
        115                 120                 125


Thr Val Ser Ser
    130
```

<210> 1592
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1592

```
Gly Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Asp Pro Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Asp
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ala Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Ser Gly
    50                  55                  60


Ile Arg Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Asp Tyr Val Asp Ser
                85                  90                  95


His Asp Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 1593
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1593

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15
```

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Ile Ile Ser Gly Ser Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Ser
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Cys Arg Gly Asp
                85                  90                  95

Pro Ser Tyr Ser Ile Asp Gly Phe Asp Pro Trp Gly Pro Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  1594
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1594

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

Asn Asp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Arg Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80
```

```
Gln Ser Gly Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Ala Trp Asp Asp
                85                  90                  95

Asp Ala Asp Thr Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
            100                 105                 110


<210>  1595
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1595

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Tyr Tyr
            20                  25                  30

Ile Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Asp Lys Ser Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Arg Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Gly Leu Lys Ile Pro
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95

Gly Gly Tyr Ala Asp His Gly Leu Gly Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  1596
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VL

<400> 1596

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ala Gly Trp
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gln Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Gly Ser Ala Ser
                85                  90                  95

Gly Ser Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1597
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1597

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Phe Ala
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Ser Ser Ser Gly Thr Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60
```

```
Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Ser His Tyr
                85                  90                  95


Asp Asp Tyr Gly Asp Ser Asp Ala Leu Asp Pro Trp Gly Pro Gly Thr
            100                 105                 110


Leu Val Thr Val Ser Ser
        115


<210>  1598
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1598

Ala Ala Val Met Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Tyr Ser Asn
            20                  25                  30


Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Gln Ser
65                  70                  75                  80


Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Val Asp Arg His Ile Ser
                85                  90                  95


Asp Arg Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  1599
<211>  112
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VH

<400> 1599

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1 5 10 15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Asp Phe Ser Tyr Asn
20 25 30

Ser Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Thr Cys Ile Tyr Asn Gly Asp Gly Ser Thr Trp Tyr Ala Ser Trp Ala
50 55 60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65 70 75 80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Thr
85 90 95

Arg Asp Phe Gly Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 1600
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1600

Ala Leu Val Met Thr Gln Thr Pro Ser Ser Thr Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Val Ala Asn His
20 25 30

Lys Gln Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Val
35 40 45

Leu Ile Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

```
Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80


Val Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ser Gly Tyr Lys Ser Ile
                85                  90                  95


Ser Thr Asp Gly Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1601
<211>  120
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1601

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Lys Tyr Thr
            20                  25                  30


Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Leu Ile Ser Phe Gly Gly Arg Gly Gly Thr Trp Tyr Ala Asn Trp Ala
    50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg
65                  70                  75                  80


Ile Ala Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95


Ala Arg Tyr Ser Gly Thr Asn Tyr Asp Tyr Phe Asn Leu Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  1602
<211>  110
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1602

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Asn Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Tyr Ser Ser Asp Gly
85 90 95

Val Thr Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
100 105 110

<210> 1603
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1603

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Ile Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Gly Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

```
Tyr Ile Tyr Thr Gly Ser Gly Thr Thr Ser Tyr Ala Ser Trp Val Asn
    50                  55                  60

Gly Arg Phe Thr Ile Ser Met Thr Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp
                85                  90                  95

Ala Ala Ser Ser Tyr Trp Gly His Phe Thr Leu Trp Gly Gln Gly Thr
            100                 105                 110

Leu Val Thr Val Ser Ser
        115
```

<210> 1604
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1604

```
Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asn Ile Tyr Ser Ser
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Arg Thr Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr His Asn Ser Gly
                85                  90                  95

Gly Gly Tyr Asp Tyr Gly Phe Gly Gly Gly Thr Glu Val Val Ala Lys
            100                 105                 110
```

<210> 1605
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1605

Gln Gln Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Phe Phe Ser Gly Ser
20 25 30

Tyr Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45

Ile Ala Cys Ile Tyr Thr Gly Ser Asp Asp Asp Thr Asn Tyr Ala Ser
50 55 60

Trp Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val
65 70 75 80

Thr Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe
85 90 95

Cys Ala Arg Arg Asn Tyr Asp Thr Asp Trp Gly Gly Asp Leu Trp Gly
100 105 110

Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1606
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1606

Ala Val Val Leu Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Ser
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Tyr Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Thr Ser Ser Asp
                85                  90                  95

Tyr Leu Asp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1607
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1607

```
Gln Glu Gln Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Tyr Tyr
            20                  25                  30

Trp Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ser
        35                  40                  45

Ala Cys Ile Gly Thr Gly Ser Gly Ser Thr Tyr Tyr Ala Thr Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95

Arg Asp Trp Gly Ile Tyr Ser Ser Asp Ala Tyr Tyr Met Asp Tyr Phe
            100                 105                 110
```

```
Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210>  1608
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1608

Ala Phe Glu Leu Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Tyr
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Pro Leu Ile
        35                  40                  45


Tyr Glu Ala Ser Lys Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Gly Ile Ser Thr Asn
                85                  90                  95


Val Gln Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1609
<211>  114
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1609

Gln Glu Gln Leu Lys Glu Ser Gly Gly Gly Leu Val Thr Pro Gly Gly
1               5                   10                  15
```

```
Thr Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser His
            20                  25                  30

Ala Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Gly Lys Ile Tyr Asp Asp Gly Thr Thr Phe Tyr Ala Asn Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Leu Arg Gly
                85                  90                  95

Tyr Asn Ser Gly Phe Asn Phe Trp Gly Gln Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 1610
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1610

```
Ala Gln Val Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Glu Ser Val Tyr Asn Asn
            20                  25                  30

Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Leu Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80
```

Asp Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Tyr Asp Asp
85 90 95

Asn Val Tyr Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1611
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1611

Gln Glu Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Glu Gly
1 5 10 15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Asn Asn
20 25 30

Ala Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Cys Ile Tyr Asp Gly Ser Ser Gly Ser Thr Tyr Tyr Ala Thr Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Ala Tyr Gly Gly Tyr Thr Val Tyr Asp Tyr Ala Phe Asn Leu
100 105 110

Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1612
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1612

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Asp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Thr Asn Leu Glu Thr Gly Val Ser Ser Arg Phe Lys Gly
50 55 60

Ser Arg Ser Gly Thr Glu Tyr Ala Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Tyr Gly Val Arg Ser Thr Tyr
85 90 95

Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105

<210> 1613
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1613

Gln Glu Gln Leu Lys Glu Ser Gly Gly Asp Leu Val Thr Pro Gly Thr
1 5 10 15

Pro Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr
20 25 30

Ala Met Ala Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile
35 40 45

Gly Phe Ile Asp Thr Asp Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Ile
65 70 75 80

```
Thr Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Gly Asp
                85                  90                  95

Ser Tyr Gly Tyr Ala Gly Phe Val Tyr Phe Asn Leu Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 1614
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1614

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Tyr Ser Ser
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Ser Tyr Tyr Gly Val Asp
                85                  90                  95

Tyr Val Gly Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1615
<211> 116
<212> PRT
<213> Artificial Sequence

<220>

<223> VH

<400> 1615

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Arg Trp Thr
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Leu Ile Tyr Ala Ser Asp Asp Thr Val Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Val Tyr
85 90 95

Gly Ser Thr Ser Gly Tyr Tyr Asp Leu Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 1616
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1616

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Asn Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Tyr Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Phe Gly Asp Gly Asn Ser
                85                  90                  95

Ile Gly His Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1617
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1617

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asn Tyr Tyr
            20                  25                  30

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Asp Lys Ser Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Arg Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Gly Leu Lys Ile Pro
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
                85                  90                  95

Gly Gly Tyr Ala Asp His Gly Leu Gly Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 1618
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1618

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ala Gly Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Gln Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Gly Ser Gly Ser
85 90 95

Gly Ser Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1619
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1619

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Lys Pro Asp Glu Thr
1 5 10 15

Leu Thr Leu Ile Cys Thr Val Ser Gly Ile Asp Leu Ser Ile Asn Val
20 25 30

Val Gly Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
35 40 45

```
Asp Ile Ser Ser His Gly Asp Thr Ile Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Ala Ser Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr Val
                85                  90                  95

Gly Asp Gly Tyr Tyr Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 1620
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1620

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asn Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ser Ser Asn
                85                  90                  95

Ile Ala Asn Leu Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1621
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1621

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Arg His Tyr Ala
            20                  25                  30


Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Val Ile Thr Thr Thr Ala Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Val Ser Lys Ala Ser Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80


Met Ser Pro Thr Ile Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala
                85                  90                  95


Met Gly Leu Tyr Asp Ser Tyr Val Asp Val Asp Asp Thr His Asp Ala
            100                 105                 110


Phe Asp Pro Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
```

<210> 1622
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1622

```
Ala Gln Val Leu Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1               5                  10                  15
```

```
Gly Thr Val Thr Ile Asn Cys Gln Ser Ser Gln Ser Val Tyr Asn Ser
            20                  25                  30

His Val Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Asp Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Ser Ala Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Asp Asp
                85                  90                  95

Asp Ala Asp Asn Ile Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Ala
```

<210> 1623
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1623

```
Gln Glu Arg Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Ala
1               5                   10                  15

Ser Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Ser Ser Gly
            20                  25                  30

Tyr Asp Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45

Val Gly Cys Ile Asp Thr Gly Thr Gly Thr Ile Tyr Tyr Ala Ser Trp
    50                  55                  60

Ala Pro Gly Arg Phe Thr Ile Ser Glu Thr Ser Ser Thr Met Val Thr
65                  70                  75                  80
```

```
Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Ser Val Gly Gly Tyr Asp Tyr Ala Ile Asp Leu Trp Gly Pro
            100                 105                 110

Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 1624
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1624

```
Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Gly Ser Arg
            20                  25                  30

Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Phe Leu Ile
        35                  40                  45

Tyr Tyr Ala Ser Asn Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val Gln Ser
65                  70                  75                  80

Asp Asn Ala Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Tyr Ser Asp
                85                  90                  95

Val Asp Asp Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1625
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1625

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

Ile Ile Ser Tyr Asp Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Val Asp
85 90 95

Tyr Gly Asp Tyr Asn Phe Ala Leu Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 1626
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1626

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Val Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

```
Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Tyr Val Ser Ser
                85                  90                  95


Tyr Phe Ala Phe Ser Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  1627
<211>  115
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1627

Gln Glu Gln Leu Lys Glu Ser Gly Gly Gly Val Val Thr Pro Gly Gly
1               5                   10                  15


Thr Leu Thr Leu Thr Cys Thr Ala Ser Ala Phe Ser Leu Asn His Tyr
            20                  25                  30


Asn Ile Gln Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45


Gly Trp Ile Leu Thr Asp Gly Thr Glu Tyr Tyr Ala Asn Trp Ala Lys
    50                  55                  60


Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile
65                  70                  75                  80


Ala Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu
                85                  90                  95


Gly Asp Trp Gly Val Asp Ser Leu Trp Gly Pro Gly Thr Leu Val Thr
            100                 105                 110


Val Ser Ser
        115


<210>  1628
<211>  112
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1628

Ala Leu Val Met Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Asp Asn Asn
20 25 30

Asp Phe Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Leu Ala Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Lys Gly Leu Tyr Phe Asp
85 90 95

Ser Gly Trp Tyr Ala Ala Phe Gly Gly Gly Thr Glu Val Val Val Glu
100 105 110

<210> 1629
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1629

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Asp
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Ile Ile Tyr Val Ser Gly Thr Thr Asp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Ile
                85                  90                  95

Tyr Val Asp Glu Ile Gly Cys Phe Asp Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  1630
<211>  108
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1630

Asp Ile Leu Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Arg Thr Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Arg Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Ile Glu Phe Ser Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Asp Gly Gly Ser Ser
                85                  90                  95

Thr Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 1631
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1631

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Ala Asp
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Tyr Ile Gly
35 40 45

Trp Ile Asn Asn Val Gly Ser Ala Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Ser Ile Ser Lys Thr Ser Ser Thr Thr Val Asp Leu Lys Val
65 70 75 80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Gly
85 90 95

Tyr Trp Leu Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 1632
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1632

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Ser Ile Ser Cys Gln Ser Ser Val Asn Val Tyr Asn Asn
20 25 30

Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

```
Leu Ile Tyr Ala Ala Ser Thr Leu Pro Ser Gly Val Ser Ser Arg Phe
    50                  55                  60

Ser Gly Asn Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Val Gly Tyr Tyr Ser Ser
                85                  90                  95

Thr Asp Asp Asn Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1633
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1633

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Thr Leu Ser Ser Tyr Tyr
            20                  25                  30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Pro Ser Gly Ser Ala Tyr Tyr Ala Thr Trp Thr Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Val Thr
65                  70                  75                  80

Gly Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Thr
                85                  90                  95

Thr Ser Ser Leu Tyr Tyr Gly Tyr Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115
```

<210> 1634
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1634

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Ala Ser Ile Thr Asn Trp
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Lys Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Ser Tyr Tyr Cys Gln Ser Asn Tyr Gly Gly Gly Ser
85 90 95

Asp Thr Ser His Thr Phe Gly Gly Gly Thr Gly Val Val Val Lys
100 105 110

<210> 1635
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1635

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ala Gly Ile Asp Leu Asn Ile Cys Gly
20 25 30

```
Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Pro Ser Asp Tyr Thr Tyr Tyr Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Leu
                85                  90                  95

Gly His Ala Trp Ser His Phe Asp Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115
```

<210> 1636
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1636

```
Ala Phe Glu Leu Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Gly Ser Asp
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Val Ser Asn Leu Pro Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Arg Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Gly Thr Ile Thr
                85                  90                  95
```

Thr Gly Tyr Ile Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1637
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1637

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Ser Tyr Asp
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Phe Ile Ser Ala Ser Gly Ser Ile Tyr Phe Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Ser Asp Ser
85 90 95

Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu Trp Gly Pro Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 1638
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1638

Ala Val Val Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Asn Cys Arg Ala Ser Glu Asp Val Gly Ser Tyr
            20                  25                  30

Leu Gly Trp Tyr Gln Gln Arg Ala Gly Gln Pro Pro Lys Leu Leu Met
        35                  40                  45

His Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Trp Leu Gly Thr Asn
                85                  90                  95

Thr Asp Lys Met Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1639
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1639

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Asp Leu Ser Ser Tyr Ala
            20                  25                  30

Thr Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Tyr Gly Ser Gly Ser Thr Thr Tyr Ala Ser Trp Val Lys Gly
    50                  55                  60

Gln Phe Thr Ile Ser Lys Ser Ser Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly
                85                  90                  95
```

```
Leu Val Ala Ser Thr Asp Asn Tyr Asn Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110


Val Thr Val Ser Ser
        115


<210>  1640
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1640

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Val Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30


Asn Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45


Leu Ile Tyr Leu Ala Ser Ile Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60


Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Asn Gly Val
65                  70                  75                  80


Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Asp Val Gly Gly
                85                  90                  95


Gly Glu Arg Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  1641
<211>  117
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1641
```

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Tyr His
            20                  25                  30

Met Cys Trp Val Arg Arg Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ser Ile Thr Thr Ala Asp Glu Thr Thr His Tyr Ala Asn Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Glu Thr Ser Thr Thr Val Asp Leu Arg Ile
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Ile Tyr Phe Cys Gly Arg Thr
                85                  90                  95

Ile Arg Tyr Asp Asp Tyr Ala Val Asp Leu Trp Gly Pro Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser
        115


<210>  1642
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1642

Asp Leu Val Met Thr Gln Thr Pro Ala Ser Met Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Val Gly Gly Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Ala Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Gly Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60
```

```
Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Phe Asp Ser Ser
                85                  90                  95


Tyr Val Gly Phe Gly Gly Gly Thr Glu Val Val Val Arg
            100                 105


<210>  1643
<211>  116
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1643

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ile Lys Ser His
            20                  25                  30


Ile Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly
        35                  40                  45


Gly Ile Ala Tyr Asp Asp Asn Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65                  70                  75                  80


Ser Pro Thr Thr Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Asp
                85                  90                  95


Ser Ser Gly Trp Gly Ser Phe Asn Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110


Thr Val Ser Ser
        115


<210>  1644
<211>  113
<212>  PRT
<213>  Artificial Sequence
```

<220>
<223> VL

<400> 1644

Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Val Tyr Ala Thr
20 25 30

Asn Gln Leu Ser Trp Phe Gln Gln Lys Ser Gly Gln Pro Pro Lys Arg
35 40 45

Leu Ile Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Ala Tyr Asp Cys
85 90 95

Ser Gly Gly Asp Cys Arg Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Lys

<210> 1645
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1645

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Ala Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Arg Tyr Ala
20 25 30

Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

```
Ile Ile Asp Asp Asn Asp Ile Thr Tyr Phe Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Leu Gly Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Thr Ala
                85                  90                  95

Asp Tyr Ala Asp Tyr Ser Phe Gly Leu Trp Gly Pro Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115


<210>  1646
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1646

Asp Val Val Met Thr Gln Thr Pro Thr Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Asn Ile Gly Asn Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Ala Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Tyr Asp Asp Ser Glu
                85                  90                  95

Tyr Phe Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105
```

<210> 1647
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1647

Gln Gln Gln Leu Glu Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Ala Ser Gly Ile Asp Phe Ser Ser Tyr
20 25 30

Trp Met Trp Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Cys Ile Tyr Asn Gly Asp Gly Ser Thr Tyr Tyr Ala Ser Trp Ala
50 55 60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65 70 75 80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
85 90 95

Arg Asp Phe His Leu Trp Gly Pro Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 1648
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1648

Ala Gln Val Leu Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Ser Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Asn Ile Tyr Lys Asn
20 25 30

```
Asn Tyr Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Gly
        35                  40                  45

Leu Ile Tyr Ser Ala Ser Thr Leu Asp Ser Gly Val Pro Leu Arg Phe
    50                  55                  60

Ser Gly Ser Gly Ser Gly Thr Lys Phe Thr Leu Thr Ile Ser Asp Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Ser Val Ala Cys
                85                  90                  95

Ser Gly Pro Asp Cys Ile Val Phe Gly Gly Gly Thr Glu Val Val Val
            100                 105                 110

Lys
```

<210> 1649
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1649

```
Gln Ser Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser
1               5                   10                  15

Leu Lys Leu Ser Cys Lys Ala Ser Gly Ile Asp Phe Ser Ser Tyr Gly
            20                  25                  30

Val Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Ala
        35                  40                  45

Tyr Thr Tyr Pro Asp Tyr Gly Ser Thr Asp Tyr Ala Ser Trp Val Asn
    50                  55                  60

Gly Arg Phe Thr Ile Ser Leu Asp Asn Ala Gln Asn Thr Val Phe Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala
                85                  90                  95
```

Ser Ser Ser Asn Gly Trp Gly Gly Gly Phe Tyr Phe Asp Leu Trp Gly
100 105 110

Pro Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1650
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1650

Ala Leu Val Met Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Tyr Ser Asn
20 25 30

Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Asn Asp Leu Lys Ser
65 70 75 80

Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Val Tyr Thr Tyr Ile Thr
85 90 95

Thr Asp Pro Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1651
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1651

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Gly Thr
1 5 10 15

```
Leu Thr Leu Thr Cys Lys Ala Ser Gly Ile Asp Phe Asn Asn Tyr Tyr
            20                  25                  30

Val Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly
        35                  40                  45

Cys Ile Tyr Thr Gly Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Thr Arg Ser Ser Ser Thr Thr Val Thr Leu Gln
65                  70                  75                  80

Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg
                85                  90                  95

Pro Glu Phe Tyr Asp Thr Tyr Gly Tyr Ala Gly Tyr Gly Tyr Ala Thr
            100                 105                 110

Pro Asn Tyr Phe Asn Phe Trp Gly Pro Gly Thr Leu Val Thr Val Ser
        115                 120                 125

Ser
```

<210> 1652
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1652

```
Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Val Tyr Asn Asn
            20                  25                  30

Asn Leu Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Met Tyr Asp Ala Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe
    50                  55                  60
```

```
Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65                  70                  75                  80


Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Gly Tyr Asp Asp
                85                  90                  95


Asp Ala Asp Tyr Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Ala
            100                 105                 110


<210>  1653
<211>  115
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1653

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Ser Thr
            20                  25                  30


Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Val Ile Tyr Thr Asp Gly Asp Thr Tyr Tyr Ala Arg Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Ile Asn Leu Ser Ile Thr
65                  70                  75                  80


Ser Pro Thr Ser Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Arg Ala
                85                  90                  95


Asn Gly Tyr Asp Asp Phe Asp Pro Trp Gly Pro Gly Thr Leu Val Thr
            100                 105                 110


Val Ser Ser
        115


<210>  1654
<211>  110
```

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1654

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Glu Ser Tyr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Gly Val Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Gly Phe Ser Tyr Ile Asn
85 90 95

Val Asp Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1655
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1655

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Asn Met Phe Tyr
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

```
Met Ile Asp Ser Met Gly Ser Ala Trp Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Ala Val Ala Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala Ile
                85                  90                  95

Asn Gly Asp Gly Ala Gly Asp Leu Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser
        115
```

<210> 1656
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1656

```
Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Arg Ala Ser Glu Lys Ile Asp Ser Phe
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Glu Leu Ala Pro Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ala Leu Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Thr Ala Asp Gly Ser Asp
                85                  90                  95

Tyr Val Gly Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1657
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1657

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Gly Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Leu Ser Gly Ile Asp Leu Ser Ser Asn Ala
20 25 30

Ile Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Phe Pro Gly Asp Asn Ile Tyr Tyr Ala Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65 70 75 80

Ser Leu Arg Thr Ala Asp Thr Ala Thr Tyr Phe Cys Ala Arg Tyr His
85 90 95

Ala Asp Asp Ser Val Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val
100 105 110

Ser Ser

<210> 1658
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1658

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Asn Gly Trp
20 25 30

```
Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Arg Leu Leu Ile
        35                  40                  45

Tyr Arg Ala Ser Asp Leu Ala Pro Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys His Leu Gly Asp Ile Tyr Ser Asn
                85                  90                  95

Ile Asp Tyr Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1659
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1659

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Ser Tyr Asp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Phe Ile Ser Ala Ile Asp Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Ser Asp Ser
                85                  90                  95

Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu Trp Gly Pro Gly Thr
            100                 105                 110
```

Leu Val Thr Val Ser Ser
        115

<210> 1660
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1660

Ala Val Val Leu Thr Gln Thr Pro Ala Ser Val Ser Ala Thr Val Gly
1   5   10   15

Gly Thr Val Thr Ile Asn Cys Arg Ala Ser Glu Asp Ile Gly Ser Tyr
            20   25   30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35   40   45

His Asp Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65   70   75   80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Trp Tyr Ser Ser Asp
                85   90   95

Ser Asp Lys Met Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105   110

<210> 1661
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1661

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1   5   10   15

```
Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Gly
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Ile Ile Asp Gly Gly Asp Ser Pro Tyr Tyr Ala Ser Trp Ala Glu Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ile Ala
                85                  90                  95

Gly Ser Asn His Gly Pro Phe Asp Leu Trp Gly Pro Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115


<210>  1662
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1662

Asp Val Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Phe Ile Ser Asn Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Cys Thr Ala Tyr Gly Ser Ser
                85                  90                  95


Tyr Val Gly Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  1663
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1663

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15


Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
            20                  25                  30


Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45


Asp Ile Asn Ser Tyr Ala Thr Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60


Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Leu Thr
65                  70                  75                  80


Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Ala
                85                  90                  95


Gly Tyr Ala Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            100                 105                 110


<210>  1664
<211>  110
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1664

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Val Ala Val Gly
1               5                  10                  15
```

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Arg Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Glu Pro Gly Gln Arg Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Glu Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Gly Val Glu Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Asp Ser Thr Asp
                85                  90                  95

Val Gly Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1665
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1665

```
Gln Ser Leu Glu Glu Ser Arg Gly Gly Leu Val Gln Pro Glu Gly Ser
1               5                   10                  15

Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Ser Phe Ser Ser Gly Tyr
            20                  25                  30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45

Gly Cys Ile Tyr Ser Gly Ser Asp Ser Ala Cys Tyr Ala Ser Trp Ala
    50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr Leu
65                  70                  75                  80

Gln Met Thr Ser Leu Thr Val Ala Asp Thr Ala Thr Tyr Phe Cys Val
                85                  90                  95
```

```
Arg Asp Leu Gly Asp Tyr Asn Ala Leu Ser Tyr Thr Ile Asn Leu Trp
            100                 105                 110


Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  1666
<211>  109
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  1666

Asp Val Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Thr Asn
            20                  25                  30


Leu Ala Trp Tyr Gln Glu Lys Ala Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Arg Ala Ser Thr Val Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Thr Thr Tyr Phe Cys Gln Cys Ile Asp Tyr Asp Asp Tyr
                85                  90                  95


Gly Gly Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105


<210>  1667
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  1667
```

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Asp Tyr Tyr
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Phe Met Asn Ser Gly Gly Asn Ala Tyr Tyr Ala Ser Trp Ala Ser Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Val Arg Asp Leu
                85                  90                  95

Ser Arg Phe Ser Leu Trp Gly Arg Gly Thr Leu Val Ile Val Ser Ser
            100                 105                 110
```

<210> 1668
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1668

```
Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Pro Ser Val Tyr Ser Asp
            20                  25                  30

Tyr Leu Ser Trp Phe Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Leu
        35                  40                  45

Ile Tyr Trp Ala Ser Thr Leu Thr Ser Gly Val Pro Ser Arg Phe Ser
    50                  55                  60

Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Val Gln
65                  70                  75                  80
```

Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Tyr Ser Gly Asn
85 90 95

Ser Asp Val Trp Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 1669
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1669

Gln Ser Leu Glu Glu Ser Gly Gly Asp Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Phe Asp Ile Asp Tyr
20 25 30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Ala Cys Ile Tyr Ala Gly Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

Leu Gln Met Pro Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg His Tyr Ala Gly Tyr Ala Gly Asp Ala Tyr Ala Thr Asp Tyr
100 105 110

Tyr Phe Asn Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 1670
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1670

Asp Ile Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Thr Val Gly
1 5 10 15

Asp Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Val Ser Asn Phe
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Pro Leu Ile
35 40 45

Tyr Gly Ala Ser Asn Leu Glu Ser Gly Val Pro Ser Arg Phe Arg Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Met Lys Ala
65 70 75 80

Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Gly Tyr Tyr Ser Ala Thr
85 90 95

Phe Gly Ala Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1671
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 1671

Gln Ser Leu Glu Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Ala Ser
1 5 10 15

Leu Thr Leu Thr Cys Lys Ala Ser Gly Phe Asp Leu Ser Ser Tyr Tyr
20 25 30

Tyr Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Cys Phe Tyr Thr Asp Asp Ser Ala Asn Thr Trp Tyr Ala Thr Trp
50 55 60

Ala Lys Gly Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Val Thr
65 70 75 80

```
Leu Gln Met Thr Ser Leu Thr Ala Ala Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Asp Ala Ser Gly Trp Tyr Trp Phe Asn Leu Trp Gly Pro Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 1672
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 1672

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Ser Cys Gln Ser Ser Gln Ser Leu His Asp Asp
            20                  25                  30

Asn Ala Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
        35                  40                  45

Leu Ile Tyr Leu Ala Ser Tyr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50                  55                  60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Glu Val
65                  70                  75                  80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Ala Tyr Ser Gly
                85                  90                  95

Asp Asn Asn Ser Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 1673
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1673

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1674
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1674

Ile Ser Ser Ser Gly Val Thr
1 5

<210> 1675
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1675

Ala Arg Asp Pro Gly Tyr Ser Thr Gly Trp Asp Tyr Phe Phe Arg Leu
1 5 10 15

<210> 1676
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1676

Glu Asp Ile Glu Ser Tyr
1 5

<210> 1677
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1677

Asp Ala Ser
1

<210> 1678
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1678

Gln His Gly Ala Tyr Thr Ser Ser Ser Asp Phe Phe Tyr Ala
1 5 10

<210> 1679
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1679

Gly Phe Ser Leu Ser Arg Tyr Tyr
1 5

<210> 1680
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1680

Ile Asn Thr Ala Gly Ser Ala
1 5

<210> 1681
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1681

Ala Arg Asp Leu Ser Arg Phe Ser Leu
1 5

<210> 1682
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1682

Pro Ser Val Tyr Ser Asp Tyr
1 5

<210> 1683
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1683

Trp Ala Ser
1

<210> 1684
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1684

Ala Gly Gly Tyr Ser Gly Asn Ser Asp Asn Trp Ala
1 5 10

<210> 1685
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1685

Gly Ile Asp Leu Ser Ser Tyr Gly
1 5

<210> 1686
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1686

Ile Ser Tyr Gly Gly Ser Thr
1 5

<210> 1687
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1687

Ala Arg Glu Val Pro Tyr Trp Ser Leu
1 5

<210> 1688
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1688

Gln Ser Ile Gly Ser Asp
1 5

<210> 1689
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1689

Asp Ala Ser
1

<210> 1690
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1690

Gln Gln Asp Tyr Ser Tyr Arg Asn Val Asp Asn Thr
1 5 10

<210> 1691
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1691

Gly Phe Ser Leu Ser Thr Tyr Gly
1 5

<210> 1692
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1692

Ile Asp Ala Gly Asp Ser Pro
1 5

<210> 1693
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1693

Ala Arg Ile Ala Gly Ser Asn His Gly Pro Phe Ser Leu
1 5 10

<210> 1694
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1694

Glu Phe Ile Ser Asn Tyr
1 5

<210> 1695
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1695

Gly Ala Ser
1

<210> 1696
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1696

Gln Cys Thr Ala Tyr Gly Ser Gly Tyr Val Gly
1 5 10

<210> 1697
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1697

Gly Phe Ser Leu His Asn Tyr Asn
1 5

<210> 1698
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1698

Ile Leu Thr Asp Gly Ser Pro
1   5

<210> 1699
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1699

Ala Arg Met Gly Asp Tyr Asn Ile Asn Gly Leu
1   5   10

<210> 1700
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1700

Gln Arg Ile Tyr Asn Asn Asp Phe
1   5

<210> 1701
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1701

Ala Ala Ser
1

<210> 1702
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 1702

Gln Gly Gly Tyr Ser Ser Ser Gly Trp Tyr Leu Pro
1 5 10

<210> 1703
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1703

Gly Ile Asp Leu Asn Asn Tyr Ala
1 5

<210> 1704
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1704

Ile Ser Gly Ala Gly Tyr Thr
1 5

<210> 1705
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1705

Ala Arg Ile Tyr Asp Ser Tyr Gly Tyr Ala Tyr Val Pro Tyr Tyr Asp
1 5 10 15

Met Asp Leu

<210> 1706
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1706

Gln Ser Val Phe Met Asn Asn Tyr
1 5

<210> 1707
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1707

Asp Ala Ser
1

<210> 1708
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1708

Leu Gly Gly Tyr Asp Asp Asp Ser Ala Thr Thr
1 5 10

<210> 1709
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1709

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1710
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1710

Ile Tyr Ser Asp Asp Ile Ala
1 5

<210> 1711
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1711

Ala Arg Gly Asp Gly Asp Arg Ser Ile Trp Ser Phe Asp Leu
1 5 10

<210> 1712
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1712

Glu Ser Val Trp Asn Asn Asn Trp
1 5

<210> 1713
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1713

Glu Ala Ser
1

<210> 1714
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1714

Gln Gly Gly Tyr Tyr Asp Ser Ser Pro Ile Trp Thr
1 5 10

<210> 1715
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1715

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1716
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1716

Ile Ser Ser Ser Gly Ser Thr
1 5

<210> 1717
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1717

Ala Arg Asp Ala Tyr Pro Ser Tyr Ser Pro Phe Gly Tyr Tyr Phe Thr
1 5 10 15

Leu

<210> 1718
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 1718

Glu Asp Ile Tyr Asn Tyr
1 5

<210> 1719
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1719

Asp Ala Ser
1

<210> 1720
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1720

Gln His Gly Tyr Phe Thr Tyr Ser Gly Glu Asn Ala
1 5 10

<210> 1721
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1721

Gly Phe Ser Phe Ser Ser Ser Tyr Tyr
1 5

<210> 1722
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1722

Ile Tyr Thr Gly Asp Gly Ala Ser
1 5

<210> 1723
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1723

Gly Arg Gly Glu Tyr Asp Asn Asp Trp Gly Phe Gly Leu
1 5 10

<210> 1724
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1724

Glu Asp Ile Ser Ser Tyr
1 5

<210> 1725
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1725

Tyr Ala Ser
1

<210> 1726
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1726

Gln Cys Ser Asn Tyr Gly Gly Ser Trp Thr
1 5 10

<210> 1727
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1727

Gly Phe Ser Leu Ser Ser Ser Trp
1 5

<210> 1728
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1728

Ile Asn Thr Gly Gly Arg Ala
1 5

<210> 1729
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1729

Val Arg Gly Ala Ala Gly Tyr Pro Glu Tyr Asp Asp Gly Asp Leu
1 5 10 15

<210> 1730
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1730

Pro Ser Val Tyr His Asn Asn Trp
1 5

<210> 1731
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1731

Glu Ala Ser
1

<210> 1732
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1732

Ala Gly Ser Phe Ser Asp Asn Ile Tyr Thr
1 5 10

<210> 1733
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1733

Gly Phe Ser Leu Ser Gly Tyr Asp
1 5

<210> 1734
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1734

Ile Tyr Ala Gly Ser Thr
1 5

<210> 1735
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1735

Thr Arg Val Gly Ala Gly Tyr Ser Gly Val Trp Ala Tyr Phe Asn Leu
1 5 10 15

<210> 1736
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1736

Gln Ser Val Asp Ser Asp Asn Tyr
1 5

<210> 1737
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1737

Asp Ala Ser
1

<210> 1738
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1738

Gln Gly Thr Tyr Gly Asn Ile Gly Trp Tyr Phe Ala
1 5 10

<210> 1739
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1739

Gly Ile Asp Leu Ser Ser Tyr Thr
1 5

<210> 1740
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1740

Ile Gly Thr Ser Gly Thr Thr
1 5

<210> 1741
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1741

Ala Arg Leu Gly Asp Asp Tyr Gly Asp Phe His Phe Asn Leu
1 5 10

<210> 1742
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1742

Gln Asn Ile Gly Asn Tyr
1 5

<210> 1743
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1743

Ala Ala Ser
1

<210> 1744
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1744

Gln Cys Thr Tyr Tyr Asp Ser Thr Tyr Phe Ala
1 5 10

<210> 1745
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1745

Gly Ile Asp Leu Ser Ser Ser Ala
1 5

<210> 1746
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1746

Ile Gly Tyr Asn Asp Phe Thr
1 5

<210> 1747
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 1747

Ala Arg Gly Gly Ser Ser Ser Tyr Ser Asp Tyr Val Phe Asp Pro
1 5 10 15

<210> 1748
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1748

Gln Ser Ile Tyr Ser Asn
1 5

<210> 1749
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1749

Asp Ala Ser
1

<210> 1750
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1750

Gln Ser Tyr Tyr Gly Ile Ser Ser Tyr Gly Val Ala
1 5 10

<210> 1751
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1751

Gly Phe Ser Leu Ser Thr Tyr Tyr
1 5

<210> 1752
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1752

Ile His Gly Asp Asp Gly Ser Thr
1 5

<210> 1753
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1753

Ala Arg Gly Leu Pro Tyr Trp Pro Asn Asp Gly Asp Phe Asn Leu
1 5 10 15

<210> 1754
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1754

Gln Ser Val Tyr Asn Asn Asn Trp
1 5

<210> 1755
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1755

Gly Ala Ser
1

<210> 1756
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1756

Ala Gly Gly Tyr Tyr Thr Thr Ser Asp Asn Gly
1 5 10

<210> 1757
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1757

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1758
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1758

Ile Asn Thr Ala Gly Gly Thr
1 5

<210> 1759
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1759

Ala Arg Tyr Asp Tyr Tyr Tyr Phe Asp Leu
1 5 10

<210> 1760
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1760

Gln Ser Val Tyr Asp Asn Asn Trp
1 5

<210> 1761
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1761

Ser Ala Ser
1

<210> 1762
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1762

His Gly Val Tyr Ser Gly Ser Ile His Ala
1 5 10

<210> 1763
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1763

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 1764
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1764

Ile Gly Ser Gly Val Ser Thr
1 5

<210> 1765
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1765

Ala Arg Asp Met Tyr Val Gly Asn Trp Gly Asp Trp Gly Leu
1 5 10

<210> 1766
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1766

Gln Ser Ile Ser Asn Asn
1 5

<210> 1767
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1767

Ser Val Ser
1

<210> 1768
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1768

Gln Gln Asp Tyr Arg Ile Gly Asp Leu Asp Ser Ala
1 5 10

<210> 1769
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1769

Gly Phe Ser Phe Ser Asn Ser Tyr Trp
1 5

<210> 1770
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1770

Ile Tyr Leu Gly Ser Ala Gly Thr Thr
1 5

<210> 1771
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1771

Ala Arg Ala Gly His Asp Tyr Trp Gly Ala Tyr His Thr Leu
1 5 10

<210> 1772
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1772

Gln Asn Ile Asp Asn Thr
1 5

<210> 1773
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1773

His Ala Ser
1

<210> 1774
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1774

Gln Cys Pro Tyr Tyr Gly Ser Thr Tyr Val Tyr Ser
1 5 10

<210> 1775
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1775

Gly Ile Asp Leu Ser Asn His Gly
1 5

<210> 1776
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1776

Ile Tyr Ile Asp Gly Gly Ala
1 5

<210> 1777
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1777

Ala Arg Gly Ile Pro Ser Asp Gly Asp Ser Ser Tyr Tyr Tyr Phe Asn
1 5 10 15

Leu

<210> 1778
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1778

Gln Ser Val Tyr Asn Lys Tyr
1 5

<210> 1779
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1779

Arg Ala Ser
1

<210> 1780
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1780

Gln Asn Asn Asn Gly Ala Gly Asp Asn Thr Asp Tyr Thr
1   5   10

<210> 1781
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1781

Gly Phe Ser Leu Ser Arg Tyr Ala
1   5

<210> 1782
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1782

Ile Ser Ser Ser Gly Thr Thr
1   5

<210> 1783
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1783

Ala Arg Ala Ile Ala Gly Asp Ala Gly Tyr Val Tyr Ala Ile Asp Trp
1   5   10   15

Leu Asp Leu

<210> 1784
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1784

Glu Tyr Ile Ser Asn Tyr
1 5

<210> 1785
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1785

Gly Ala Ser
1

<210> 1786
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1786

Gln Gly Gly Tyr Phe Ser Ser Ser Thr Thr Tyr Val Ala
1 5 10

<210> 1787
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1787

Gly Phe Thr Leu Ser Gly Tyr Trp
1 5

<210> 1788
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1788

Ile Tyr Asn Gly Asp Gly Ser Thr
1 5

<210> 1789
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1789

Ala Arg Asp Ser Asn Gly Trp Gly Ala Tyr Gly Leu
1 5 10

<210> 1790
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1790

Gln Ser Ile Gly Ser Tyr
1 5

<210> 1791
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1791

Asp Ala Ser
1

<210> 1792
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 1792

Gln Gly Gly Tyr Tyr Ser Ser Ala Thr Glu Ile Ala
1 5 10

<210> 1793
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1793

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1794
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1794

Ile Ser Thr Ser Ala Asn Thr
1 5

<210> 1795
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1795

Ala Arg Val Val Gly Leu Tyr Asp Ser Tyr Gly Asp Val Asp Ala Thr
1 5 10 15

Tyr Asp Ala Phe Asp Pro
20

<210> 1796
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1796

Gln Ser Val Tyr Asn Asn Asn Leu
1 5

<210> 1797
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1797

Asp Ala Ser
1

<210> 1798
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1798

Leu Gly Gly Tyr Asp Asp Asp Ala Asp Ile Tyr Ala
1 5 10

<210> 1799
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1799

Gly Phe Ser Leu Asn Ser Tyr Asp
1 5

<210> 1800
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1800

Ile Ser Ala Ser Gly Ser Ile
1 5

<210> 1801
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1801

Ala Ser Asp Ser Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu
1 5 10 15

<210> 1802
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1802

Glu Asp Ile Gly Ser Tyr
1 5

<210> 1803
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1803

Asp Ala Ser
1

<210> 1804
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1804

Gln Ser Ala Trp Tyr Ser Ser Gly Thr Asp Lys Met Ala
1 5 10

<210> 1805
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1805

Gly Phe Ser Phe Ser Ser Ala Asn Cys
1 5

<210> 1806
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1806

Val Cys Ile Gly Asp Gly Thr Thr
1 5

<210> 1807
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1807

Ala Arg Asp Leu Gly Leu
1 5

<210> 1808
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1808

Glu Ser Val Asp Lys Tyr Thr Gln
1   5

<210> 1809
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1809

Tyr Ala Ser
1

<210> 1810
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1810

Ser Gly Tyr Lys Gly Gly Ser Ala Asp Met Ile Ala
1   5   10

<210> 1811
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1811

Gly Phe Ser Leu Ser Asn Tyr Ala
1   5

<210> 1812
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1812

Ile Ser Gly Ser Gly Ser Thr
1   5

<210> 1813
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1813

Gly Arg Gly Arg Asp Asp Asp Tyr Ala Trp Asp Leu
1 5 10

<210> 1814
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1814

Gln Thr Ile Ser Asn Tyr
1 5

<210> 1815
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1815

Ala Ala Ser
1

<210> 1816
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1816

His Cys Thr Tyr Tyr Asp Ser Ser Tyr His Gly
1 5 10

<210> 1817
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1817

Gly Phe Ser Phe Ser Ser Ala Tyr Tyr
1 5

<210> 1818
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1818

Ile Asp Ala Gly Ser Ser Gly Ser Thr
1 5

<210> 1819
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1819

Ala Arg Asp Gly Gly Ser Thr Thr Gly Tyr Gly Trp Leu Asp Leu
1 5 10 15

<210> 1820
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1820

Gln Ser Ile Gly Thr Asn Tyr
1 5

<210> 1821
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1821

Glu Ala Ser
1

<210> 1822
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1822

Leu Tyr Ser Tyr Tyr Ser Ser Ser Ser Ala Tyr Thr
1 5 10

<210> 1823
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1823

Gly Phe Ser Leu Ser Thr Tyr Asn
1 5

<210> 1824
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1824

Met Ala Phe Asp Gly Asn Thr
1 5

<210> 1825
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1825

Cys Lys Gly Asp Pro Ser Ser Asp Thr Gly Thr Thr Leu
1 5 10

<210> 1826
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1826

Pro Ser Val Tyr Ser Asn Asn Trp
1 5

<210> 1827
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1827

Ala Ala Ala
1

<210> 1828
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1828

Ala Gly Gly Phe Asn Ser Asp Ser Asp Thr Thr
1 5 10

<210> 1829
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR1

<400> 1829

Gly Phe Ser Leu Ile Asn Tyr Asn
1 5

<210> 1830
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1830

Ile Leu Thr Asp Gly Thr Val
1 5

<210> 1831
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1831

Ala Arg Asp Tyr Pro Ser Tyr Ile Ala Phe Asp Leu
1 5 10

<210> 1832
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1832

Gln Ser Val Tyr Asn Asp Asp Asn
1 5

<210> 1833
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1833

Gly Ala Ser
1

<210> 1834
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1834

Gln Gly Gly Gly Phe Ser Ser Gly Trp Tyr Trp Ala
1 5 10

<210> 1835
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1835

Gly Phe Ser Leu Ser Thr Tyr Asp
1 5

<210> 1836
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1836

Ile Gly Gly Ser Gly Phe Thr
1 5

<210> 1837
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1837

Ala Arg Asn Asn Tyr Asp Met
1   5

<210> 1838
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1838

Gln Ser Ile Ser Asn Glu
1   5

<210> 1839
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1839

Gly Ala Ser
1

<210> 1840
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1840

Gln Cys Thr Tyr Tyr Gly Ser Ser Tyr Val Gly Gly Ala
1   5   10

<210> 1841
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1841

Gly Phe Ser Leu Gly Ser Tyr Pro
1   5

<210> 1842
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1842

Ile Asp Pro Gly Arg Gly Thr Thr
1 5

<210> 1843
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1843

Ala Arg Ser Tyr Pro Gly Asp Gly Ala Gly Asp Leu
1 5 10

<210> 1844
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1844

Glu Ser Ile Ser Asn Tyr
1 5

<210> 1845
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1845

Gly Ala Ser
1

<210> 1846
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1846

Gln Cys Thr Tyr Tyr Gly Ser Gly Asp Val Gly Gly Ala
1 5 10

<210> 1847
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1847

Gly Phe Asp Phe Ser Ser Gly Tyr
1 5

<210> 1848
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1848

Ile Asp Pro Val Phe Gly Ser Thr
1 5

<210> 1849
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1849

Ala Arg Asp Leu Arg Ala Phe Tyr Ser Gly Trp Gly Gly Ile Asn Leu
1 5 10 15

<210> 1850
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1850

Gln Ile Val Val Asn Asn Asn Phe
1 5

<210> 1851
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1851

Asp Ala Ser
1

<210> 1852
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1852

Leu Gly Gly Tyr Asp Asp Asp Ala Glu Asn Ala
1 5 10

<210> 1853
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1853

Gly Phe Ser Leu Asn Ser Tyr Asp
1 5

<210> 1854
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1854

Ile Ser Ala Ser Gly Ser Ile
1 5

<210> 1855
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1855

Ala Ser Asp Ser Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu
1 5 10 15

<210> 1856
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1856

Glu Asp Ile Gly Ser Tyr
1 5

<210> 1857
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1857

Asp Ala Ser
1

<210> 1858
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 1858

Gln Ser Ala Trp Tyr Ser Ser Asn Thr Asp Lys Met Ala
1 5 10

<210> 1859
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1859

Glu Phe Ser Leu Ser Ser Asn Ala
1 5

<210> 1860
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1860

Ile Asp Ser Gly Gly Asp Ala
1 5

<210> 1861
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1861

Gly Arg Gly Tyr Trp Phe Pro Arg Leu Gly Leu
1 5 10

<210> 1862
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1862

Lys Asn Val Tyr Leu Asn Asn Trp
1 5

<210> 1863
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1863

Asp Ala Ser
1

<210> 1864
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1864

Ala Gly Ala Tyr Asp Asp Asn Ser Asp His Thr
1 5 10

<210> 1865
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1865

Gly Phe Ser Phe Asn Val Asp Tyr Tyr
1 5

<210> 1866
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1866

Ile Tyr Val Gly Ser Glu Gly Ser Thr
1   5

<210> 1867
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1867

Ala Arg His Tyr Ala Gly Tyr Ala Gly Tyr Asn Tyr Ala Thr Asp Tyr
1   5   10   15

Tyr Phe Thr Leu
            20

<210> 1868
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1868

Gln Ser Val Thr Asn Phe
1   5

<210> 1869
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1869

Gly Ala Ser
1

<210> 1870
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1870

Gln Ser Gly Tyr Tyr Ser Ala Thr
1 5

<210> 1871
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1871

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1872
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1872

Ile Ser Ser Gly Gly Asn Thr
1 5

<210> 1873
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1873

Ala Arg Gly Ile His Ser Tyr Asp Asp Tyr Leu Gly Tyr Lys Leu
1 5 10 15

<210> 1874
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1874

Glu Phe Leu Phe Asn Ala
1 5

<210> 1875
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1875

Gly Ala Ser
1

<210> 1876
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1876

Leu Gly Gly Tyr Lys Arg Ala Asp Leu Thr
1 5 10

<210> 1877
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1877

Gly Phe Ser Leu Asn Asp Tyr Ala
1 5

<210> 1878
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1878

Ile Tyr Thr Ser Gly Thr Pro
1 5

<210> 1879
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1879

Ala Arg Gln Ser Gly Ile Asp Asn Tyr Trp Leu Phe Thr Leu
1 5 10

<210> 1880
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1880

Glu Ser Ile Ala Ser Gly
1 5

<210> 1881
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1881

Ser Ala Ser
1

<210> 1882
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1882

Gln Gln Gly Tyr Thr Ser Thr Asn Leu His Asn Val
1 5 10

<210> 1883
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1883

Gly Phe Ser Leu Ser Ala Tyr Trp
1 5

<210> 1884
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1884

Ile Tyr Ala Thr Gly Ser Thr
1 5

<210> 1885
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1885

Gly Arg Gly Asp Gly Tyr Glu Ser Leu Asn Leu
1 5 10

<210> 1886
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1886

Gln Ser Val Tyr Ser Asn Asn Leu
1 5

<210> 1887
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1887

Gly Ala Ser
1

<210> 1888
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1888

Leu Gly Tyr Tyr Ser Gly Gly Ile Tyr Val
1 5 10

<210> 1889
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1889

Gly Phe Ser Leu Ser Ser Tyr Tyr
1 5

<210> 1890
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1890

Ile Asp Thr Gly Ser Gly Asp Thr
1 5

<210> 1891
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1891

Ala Arg Val Asn Pro Glu Phe Ala His Val Trp Pro Tyr Tyr Phe Asp
1   5   10   15

Leu

<210> 1892
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1892

Gln Ser Ile Ser Ser Asn Phe
1   5

<210> 1893
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1893

Arg Ala Ser
1

<210> 1894
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1894

Gln Gln Gly Asp Ser Leu Ser Asn Val Glu Asn Ala
1   5   10

<210> 1895
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1895

Gly Phe Ser Leu Ser Asn Tyr Asn
1   5

<210> 1896
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1896

Ile Ser Thr Asp Gly Ser Ala
1   5

<210> 1897
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1897

Ala Arg Leu Tyr Tyr Arg His Gly Tyr Ala Leu Asn Leu
1   5   10

<210> 1898
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1898

Gln Ser Val Gly Ser Tyr
1   5

<210> 1899
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1899

Ser Ala Ser
1

<210> 1900
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1900

His Cys Thr Tyr Gly Ser Asn Ile Thr Ala Asn Trp Gly Thr
1 5 10

<210> 1901
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1901

Gly Phe Asp Phe Asn Asn Asn Ala
1 5

<210> 1902
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1902

Ile Tyr Asp Gly Ser Ser Gly Ser Thr
1 5

<210> 1903
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 1903

Ala Arg Ala Tyr Ala Ala Tyr Thr Val Tyr Asp Tyr Ala Phe Asn Leu
1 5 10 15

<210> 1904
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1904

Gln Ser Ile Gly Ser Asp
1 5

<210> 1905
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1905

Tyr Thr Thr
1

<210> 1906
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1906

Gln Tyr Ala Asp Arg Ser Ser Tyr Ser
1 5

<210> 1907
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1907

Gly Phe Ser Leu Ser Arg Tyr Thr
1 5

<210> 1908
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1908

Ile Tyr Gly Asp Asp Asn Thr
1 5

<210> 1909
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1909

Ala Ser Cys Ala Pro Ile Tyr Tyr Asn Thr Phe Ser Phe Asn Leu
1 5 10 15

<210> 1910
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1910

Gln Thr Ile Gly Gly Ser
1 5

<210> 1911
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1911

Ala Ala Ala
1

<210> 1912
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1912

Gln Gln His Tyr Thr Gly Asp Asn Val Asn Asn Pro
1 5 10

<210> 1913
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1913

Gly Phe Ser Leu Ser Arg Tyr His
1 5

<210> 1914
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1914

Ile His Thr Asp Asp Thr Asn
1 5

<210> 1915
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1915

Ala Arg Val Ser Ser Val Gly Gly Tyr Tyr Phe Asp Leu
1 5 10

<210> 1916
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1916

Glu Asp Ile Tyr Asn Leu
1 5

<210> 1917
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1917

Ala Ala Ser
1

<210> 1918
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1918

Gln Asn Asn Tyr Leu Ile Ser Ser Tyr Gly Val Gly
1 5 10

<210> 1919
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1919

Gly Phe Ser Leu Ser Gly Tyr Asp
1 5

<210> 1920
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1920

Ile Tyr Gly Gly Asn Thr
1 5

<210> 1921
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1921

Thr Arg Val Gly Ala Gly Tyr Ser Gly Val Trp Ala Tyr Phe Asn Leu
1 5 10 15

<210> 1922
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1922

Gln Ser Val Asp Ser Asp Asn Tyr
1 5

<210> 1923
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1923

Asp Thr Ser
1

<210> 1924
<211> 11

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1924

Gln Gly Thr Tyr Tyr Asn Gly Trp Tyr Phe Ala
1 5 10

<210> 1925
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1925

Gly Phe Ser Leu Thr Asn Tyr Ala
1 5

<210> 1926
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1926

Ile Asn Tyr Asp Gly Asn Thr
1 5

<210> 1927
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1927

Ala Arg Gly Gly Asp Gly Tyr Thr His Ile Pro Asp Thr Phe Asp Pro
1 5 10 15

<210> 1928
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1928

Gln Ser Ile Tyr Ser Tyr
1 5

<210> 1929
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1929

Tyr Ala Ser
1

<210> 1930
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1930

Gln Gln Gly Tyr Ser Tyr Ser Asn Ile Asp Asn Val
1 5 10

<210> 1931
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1931

Gly Phe Asp Leu Ser Ser Tyr Tyr
1 5

<210> 1932
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 1932

Ile Tyr Thr Asp Ser Ser Ala
1 5

<210> 1933
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1933

Ala Arg Gly Leu Val Val Ser Thr Asp Asn Tyr Asn Leu
1 5 10

<210> 1934
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1934

Gln Ser Ile Tyr Asn Asn Asn Tyr
1 5

<210> 1935
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1935

Tyr Thr Ser
1

<210> 1936
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1936

Leu Gly Asp Val Gly Gly Gly Met Arg Val
1 5 10

<210> 1937
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1937

Gly Phe Ser Leu Asn Asn Trp Val
1 5

<210> 1938
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1938

Ile Asp Ile Val Gly Ser Gly Ser Thr
1 5

<210> 1939
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1939

Ala Arg Gly Val Asn Gly Asp Gly Asn Leu Asn Leu
1 5 10

<210> 1940
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1940

Glu Thr Ile Ser Asn Tyr
1   5

<210> 1941
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1941

Gly Ala Ser
1

<210> 1942
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1942

Gln Cys Thr Tyr Val Gly Asp Ser Tyr Thr Ala
1   5   10

<210> 1943
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1943

Gly Phe Ser Leu Ser Asn Tyr Ala
1   5

<210> 1944
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1944

Ile Ser Pro Ser Gly Asn Thr
1   5

<210> 1945
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1945

Ala Arg Glu Gly Ala Leu Tyr Asp Asp Tyr Gly Asp Tyr Val Asp Ala
1 5 10 15

Phe Asp Pro

<210> 1946
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1946

Glu Ser Val Tyr Asn Asn Asn Trp
1 5

<210> 1947
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1947

Arg Ala Ser
1

<210> 1948
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1948

Ala Gly Gly Tyr Ser Ser Ser Ser Asp Ile Asn Ala
1   5   10

<210> 1949
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1949

Gly Leu Ser Phe Ser Gly Ser Tyr Trp
1   5

<210> 1950
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1950

Ile Thr Ala Gly Ile Ser Gly Ser Thr
1   5

<210> 1951
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1951

Ala Arg Glu Arg Thr Gly Gly Trp Gly Asp Phe Asn Leu
1   5   10

<210> 1952
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1952

Gln Ser Ile Thr Thr Tyr
1   5

<210> 1953
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1953

Leu Ala Ser
1

<210> 1954
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1954

Gln Cys Thr Asp Gly Gly Ile Asn His Trp Phe Trp Ala
1 5 10

<210> 1955
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1955

Gly Phe Ser Phe Ser Ser Gly Tyr Asp
1 5

<210> 1956
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1956

Ile Asp Thr Ala Thr Asp Thr Ile
1 5

<210> 1957
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1957

Ala Arg Ser Val Gly Gly Val Asp Tyr Ala Ile Asp Leu
1 5 10

<210> 1958
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1958

Gln Asn Ile Gly Ser Arg
1 5

<210> 1959
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1959

Tyr Ala Ser
1

<210> 1960
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1960

Gln Gln Thr Tyr Ser Tyr Ser Asp Val Asp Asp Thr
1 5 10

<210> 1961
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1961

Gly Phe Ser Leu Ser Thr Tyr Ala
1 5

<210> 1962
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1962

Ile Ala Gly Gly Gly Asn Thr
1 5

<210> 1963
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1963

Ala Arg Ala Asp Tyr Leu Gly Tyr Gly Asn Asn Phe
1 5 10

<210> 1964
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1964

Gln Ser Val Tyr Asn Asn Asn Tyr
1 5

<210> 1965
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1965

Trp Ala Ser
1

<210> 1966
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1966

Leu Gly Val Tyr Asp Asp Asp Ala Asp Asn Gly
1 5 10

<210> 1967
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1967

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 1968
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1968

Ile Ser Tyr Asp Gly Ser Thr
1 5

<210> 1969
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 1969

Ala Arg Ala Arg Ile Asp Asp Gly Tyr Gly Asn Leu
1 5 10

<210> 1970
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1970

Glu Ser Ile Ser Asn Tyr
1 5

<210> 1971
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1971

Ala Ala Ser
1

<210> 1972
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1972

Gln Cys Thr Tyr Val Ala Ser Thr Tyr Val Gly Thr
1 5 10

<210> 1973
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1973

Gly Phe Ser Leu Ser Thr Tyr Tyr
1 5

<210> 1974
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1974

Ile Tyr Val Arg Gly Gly Ala
1 5

<210> 1975
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1975

Ala Arg Glu Gly Leu Ser Leu
1 5

<210> 1976
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1976

Gln Ser Val Tyr Lys Asn Asn Arg
1 5

<210> 1977
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1977

Glu Thr Ser
1

<210> 1978
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1978

Leu Gly Gly Tyr Asp Cys Gly Ser Ala Asp Cys Asn Ala
1 5 10

<210> 1979
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1979

Gly Phe Ser Leu Asn Asn Asn Tyr Trp
1 5

<210> 1980
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1980

Ile Tyr Val Gly Val Val Ser Leu Thr
1 5

<210> 1981
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1981

Ala Arg Ser Leu Tyr Ser Gly Tyr Ala Gly Tyr Gly Asp Gly Tyr Tyr
1 5 10 15

Gly Met Asp Leu
            20

<210> 1982
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1982

Gln Ser Ile Gly Ser Asp
1   5

<210> 1983
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1983

Ala Ala Ser
1

<210> 1984
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1984

Gln Cys Thr Asp Tyr Val Asp Ser His Asp Thr
1   5   10

<210> 1985
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1985

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 1986
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1986

Ile Ser Gly Ser Gly Asn Thr
1 5

<210> 1987
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1987

Cys Arg Gly Asp Pro Ser Tyr Ser Ile Asp Gly Phe Asp Pro
1 5 10

<210> 1988
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1988

Gln Ser Val Tyr Asn Asn Asn Asp
1 5

<210> 1989
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1989

Arg Ala Ser
1

<210> 1990
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1990

Leu Gly Ala Trp Asp Asp Asp Ala Asp Thr Trp Ala
1 5 10

<210> 1991
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1991

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 1992
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1992

Ile Asp Lys Ser Gly Ser Ala
1 5

<210> 1993
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1993

Ala Arg Gly Tyr Gly Gly Tyr Ala Asp His Gly Leu Gly Leu
1 5 10

<210> 1994
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 1994

Gln Ser Ile Ala Gly Trp
1 5

<210> 1995
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 1995

Gln Ala Ser
1

<210> 1996
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 1996

Gln Cys Thr Tyr Gly Ser Ala Ser Gly Ser Asn Gly
1 5 10

<210> 1997
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 1997

Gly Phe Ser Leu Ser Ser Phe Ala
1 5

<210> 1998
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 1998

Ile Ser Ser Ser Gly Thr Thr
1 5

<210> 1999
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 1999

Ala Ser His Tyr Asp Asp Tyr Gly Asp Ser Asp Ala Leu Asp Pro
1 5 10 15

<210> 2000
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2000

Glu Asp Ile Tyr Ser Asn
1 5

<210> 2001
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2001

Arg Ala Ser
1

<210> 2002
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2002

Leu Gly Val Asp Arg His Ile Ser Asp Arg Ala
1   5   10

<210> 2003
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2003

Gly Phe Asp Phe Ser Tyr Asn Ser
1   5

<210> 2004
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2004

Ile Tyr Asn Gly Asp Gly Ser Thr
1   5

<210> 2005
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2005

Thr Arg Asp Phe Gly Leu
1   5

<210> 2006
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 2006

Glu Ser Val Ala Asn His Lys Gln
1 5

<210> 2007
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2007

Tyr Ala Ser
1

<210> 2008
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2008

Ser Gly Tyr Lys Ser Ile Ser Thr Asp Gly Asn Ala
1 5 10

<210> 2009
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2009

Gly Ile Asp Leu Ser Lys Tyr Thr
1 5

<210> 2010
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2010

Ile Ser Phe Gly Gly Arg Gly Gly Thr
1 5

<210> 2011
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2011

Ala Arg Ala Arg Tyr Ser Gly Thr Asn Tyr Asp Tyr Phe Asn Leu
1 5 10 15

<210> 2012
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2012

Gln Ser Ile Ser Asn Trp
1 5

<210> 2013
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2013

Gly Ala Ser
1

<210> 2014
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2014

Gln Gln Gly Tyr Ser Ser Asp Gly Val Thr Asn Ala
1 5 10

<210> 2015
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2015

Gly Ile Asp Leu Ser Ser Gly Ala
1 5

<210> 2016
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2016

Ile Tyr Thr Gly Ser Gly Thr Thr
1 5

<210> 2017
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2017

Ala Arg Asp Ala Ala Ser Ser Tyr Trp Gly His Phe Thr Leu
1 5 10

<210> 2018
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2018

Glu Asn Ile Tyr Ser Ser
1 5

<210> 2019
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2019

Arg Thr Ser
1

<210> 2020
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2020

Gln Ser Tyr Tyr His Asn Ser Gly Gly Gly Tyr Asp Tyr Gly
1 5 10

<210> 2021
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2021

Gly Phe Phe Phe Ser Gly Ser Tyr Tyr
1 5

<210> 2022
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2022

Ile Tyr Thr Gly Ser Asp Asp Asp Thr
1 5

<210> 2023
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2023

Ala Arg Arg Asn Tyr Asp Thr Asp Trp Gly Gly Asp Leu
1 5 10

<210> 2024
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2024

Gln Ser Ile Gly Ser Ser
1 5

<210> 2025
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2025

Tyr Ala Ser
1

<210> 2026
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2026

Gln Cys Thr Tyr Thr Ser Ser Asp Tyr Leu Asp Ala
1 5 10

<210> 2027
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2027

Gly Phe Ser Phe Ser Tyr Tyr Trp
1 5

<210> 2028
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2028

Ile Gly Thr Gly Ser Gly Ser Thr
1 5

<210> 2029
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2029

Ala Arg Asp Trp Gly Ile Tyr Ser Ser Asp Ala Tyr Tyr Met Asp Tyr
1 5 10 15

Phe Asn Leu

<210> 2030
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2030

Gln Ser Ile Gly Ser Tyr
1 5

<210> 2031
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2031

Glu Ala Ser
1

<210> 2032
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2032

Gln Gln Gly Gly Ile Ser Thr Asn Val Gln Asn Ala
1 5 10

<210> 2033
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2033

Gly Phe Thr Phe Ser Ser His Ala
1 5

<210> 2034
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2034

Ile Tyr Asp Asp Gly Thr Thr
1 5

<210> 2035
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2035

Leu Arg Gly Tyr Asn Ser Gly Phe Asn Phe
1 5 10

<210> 2036
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2036

Glu Ser Val Tyr Asn Asn Asn Phe
1 5

<210> 2037
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2037

Leu Ala Ser
1

<210> 2038
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2038

Ala Gly Gly Tyr Asp Asp Asn Val Tyr Gly
1 5 10

<210> 2039
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2039

Gly Phe Ser Phe Ser Asn Asn Ala
1 5

<210> 2040
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2040

Ile Tyr Asp Gly Ser Ser Gly Ser Thr
1 5

<210> 2041
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2041

Ala Arg Ala Tyr Gly Gly Tyr Thr Val Tyr Asp Tyr Ala Phe Asn Leu
1 5 10 15

<210> 2042
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2042

Gln Ser Ile Gly Ser Asp
1 5

<210> 2043
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 2043

Tyr Thr Thr
1

<210> 2044
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2044

Gln Tyr Gly Val Arg Ser Thr Tyr Ser
1 5

<210> 2045
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2045

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 2046
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2046

Ile Asp Thr Asp Gly Ser Ala
1 5

<210> 2047
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2047

Ala Gly Asp Ser Tyr Gly Tyr Ala Gly Phe Val Tyr Phe Asn Leu
1 5 10 15

<210> 2048
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2048

Gln Asn Ile Tyr Ser Ser
1 5

<210> 2049
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2049

Asp Ala Ser
1

<210> 2050
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2050

Gln Cys Ser Tyr Tyr Gly Val Asp Tyr Val Gly Gly
1 5 10

<210> 2051
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2051

Gly Ile Asp Leu Ser Arg Trp Thr
1   5

<210> 2052
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2052

Ile Tyr Ala Ser Asp Asp Thr
1   5

<210> 2053
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2053

Val Arg Val Tyr Gly Ser Thr Ser Gly Tyr Tyr Asp Leu
1   5   10

<210> 2054
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2054

Gln Ser Ile Ser Asn Trp
1   5

<210> 2055
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2055

Tyr Ala Ser
1

<210> 2056
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2056

Gln Asn Phe Gly Asp Gly Asn Ser Ile Gly His Ala
1 5 10

<210> 2057
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2057

Gly Phe Ser Leu Ser Asn Tyr Tyr
1 5

<210> 2058
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2058

Ile Asp Lys Ser Gly Ser Ala
1 5

<210> 2059
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2059

Ala Arg Gly Tyr Gly Gly Tyr Ala Asp His Gly Leu Gly Leu
1 5 10

<210> 2060
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2060

Gln Ser Ile Ala Gly Trp
1 5

<210> 2061
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2061

Gln Ala Ser
1

<210> 2062
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2062

Gln Cys Thr Tyr Gly Ser Gly Ser Gly Ser Asn Gly
1 5 10

<210> 2063
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2063

Gly Ile Asp Leu Ser Ile Asn Val
1 5

<210> 2064
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2064

Ile Ser Ser His Gly Asp Thr
1   5

<210> 2065
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2065

Ala Arg Tyr Val Gly Asp Gly Tyr Tyr Asp Leu
1   5   10

<210> 2066
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2066

Gln Ser Ile Ser Asn Leu
1   5

<210> 2067
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2067

Asp Thr Ser
1

<210> 2068
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2068

Gln Gln Ser Tyr Ser Ser Ser Asn Ile Ala Asn Leu
1   5   10

<210> 2069
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2069

Gly Phe Ser Leu Arg His Tyr Ala
1   5

<210> 2070
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2070

Ile Thr Thr Thr Ala Asn Thr
1   5

<210> 2071
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2071

Ala Arg Ala Met Gly Leu Tyr Asp Ser Tyr Val Asp Val Asp Asp Thr
1   5   10   15

His Asp Ala Phe Asp Pro
            20

<210> 2072
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2072

Gln Ser Val Tyr Asn Ser His Val
1 5

<210> 2073
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2073

Asp Ala Ser
1

<210> 2074
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2074

Leu Gly Gly Tyr Asp Asp Asp Ala Asp Asn Ile Phe Ala
1 5 10

<210> 2075
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2075

Gly Phe Ser Phe Ser Ser Gly Tyr Asp
1 5

<210> 2076
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2076

Ile Asp Thr Gly Thr Gly Thr Ile
1 5

<210> 2077
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2077

Ala Arg Ser Val Gly Gly Tyr Asp Tyr Ala Ile Asp Leu
1 5 10

<210> 2078
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2078

Gln Asn Ile Gly Ser Arg
1 5

<210> 2079
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2079

Tyr Ala Ser
1

<210> 2080
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 2080

Gln Gln Thr Tyr Ser Tyr Ser Asp Val Asp Asp Thr
1 5 10

<210> 2081
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2081

Gly Ile Asp Leu Ser Ser Tyr Ala
1 5

<210> 2082
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2082

Ile Ser Tyr Asp Gly Ser Thr
1 5

<210> 2083
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2083

Ala Arg Val Asp Tyr Gly Asp Tyr Asn Phe Ala Leu
1 5 10

<210> 2084
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2084

Glu Ser Ile Ser Asn Tyr
1 5

<210> 2085
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2085

Ala Ala Ser
1

<210> 2086
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2086

Gln Cys Thr Tyr Tyr Val Ser Ser Tyr Phe Ala
1 5 10

<210> 2087
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2087

Ala Phe Ser Leu Asn His Tyr Asn
1 5

<210> 2088
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2088

Ile Leu Thr Asp Gly Thr Glu
1 5

<210> 2089
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2089

Ala Arg Glu Gly Asp Trp Gly Val Asp Ser Leu
1 5 10

<210> 2090
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2090

Gln Ser Val Asp Asn Asn Asp Phe
1 5

<210> 2091
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2091

Leu Ala Ser
1

<210> 2092
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2092

Lys Gly Leu Tyr Phe Asp Ser Gly Trp Tyr Ala Ala
1 5 10

<210> 2093
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2093

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 2094
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2094

Ile Tyr Val Ser Gly Thr Thr
1 5

<210> 2095
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2095

Ala Arg Asp Ile Tyr Val Asp Glu Ile Gly Cys Phe Asp Leu
1 5 10

<210> 2096
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2096

Gln Asn Ile Arg Thr Tyr
1 5

<210> 2097
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2097

Arg Ala Ser
1

<210> 2098
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2098

Gln Asn Tyr Asp Gly Gly Ser Ser Thr Gly
1 5 10

<210> 2099
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2099

Gly Ile Asp Leu Ser Ser Ala Asp
1 5

<210> 2100
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2100

Ile Asn Asn Val Gly Ser Ala
1 5

<210> 2101
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2101

Val Arg Gly Tyr Trp Leu Asp Leu
1 5

<210> 2102
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2102

Val Asn Val Tyr Asn Asn Asn Tyr
1 5

<210> 2103
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2103

Ala Ala Ser
1

<210> 2104
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2104

Val Gly Tyr Tyr Ser Ser Thr Asp Asp Asn Gly
1 5 10

<210> 2105
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2105

Gly Phe Thr Leu Ser Ser Tyr Tyr
1 5

<210> 2106
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2106

Ile Tyr Pro Ser Gly Ser Ala
1 5

<210> 2107
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2107

Ala Arg Ser Thr Thr Ser Ser Leu Tyr Tyr Gly Tyr Asn Leu
1 5 10

<210> 2108
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2108

Ala Ser Ile Thr Asn Trp
1 5

<210> 2109
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 2109

Lys Ala Ser
1

<210> 2110
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2110

Gln Ser Asn Tyr Gly Gly Gly Ser Asp Thr Ser His Thr
1 5 10

<210> 2111
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2111

Gly Ile Asp Leu Asn Ile Cys Gly
1 5

<210> 2112
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2112

Ile Tyr Pro Ser Asp Tyr Thr
1 5

<210> 2113
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2113

Ala Arg Gly Leu Gly His Ala Trp Ser His Phe Asp Leu
1 5 10

<210> 2114
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2114

Gln Ser Ile Gly Ser Asp
1 5

<210> 2115
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2115

Ser Val Ser
1

<210> 2116
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2116

Gln Ser Tyr Tyr Gly Thr Ile Thr Thr Gly Tyr Ile Ala
1 5 10

<210> 2117
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2117

Gly Phe Ser Leu Asn Ser Tyr Asp
1   5

<210> 2118
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2118

Ile Ser Ala Ser Gly Ser Ile
1   5

<210> 2119
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2119

Ala Ser Asp Ser Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu
1   5   10   15

<210> 2120
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2120

Glu Asp Val Gly Ser Tyr
1   5

<210> 2121
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2121

Asp Ala Ser
1

<210> 2122
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2122

Gln Ser Ala Trp Leu Gly Thr Asn Thr Asp Lys Met Ala
1 5 10

<210> 2123
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2123

Gly Phe Asp Leu Ser Ser Tyr Ala
1 5

<210> 2124
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2124

Ile Tyr Gly Ser Gly Ser Thr
1 5

<210> 2125
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2125

Ala Arg Gly Leu Val Ala Ser Thr Asp Asn Tyr Asn Leu
1 5 10

<210> 2126
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2126

Gln Ser Val Tyr Asn Asn Asn Tyr
1 5

<210> 2127
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2127

Leu Ala Ser
1

<210> 2128
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2128

Leu Gly Asp Val Gly Gly Gly Glu Arg Val
1 5 10

<210> 2129
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2129

Gly Phe Ser Leu Ser Asn Tyr His
1 5

<210> 2130
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2130

Ile Thr Thr Ala Asp Glu Thr Thr
1 5

<210> 2131
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2131

Gly Arg Thr Ile Arg Tyr Asp Asp Tyr Ala Val Asp Leu
1 5 10

<210> 2132
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2132

Glu Ser Val Gly Gly Tyr
1 5

<210> 2133
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2133

Ala Ala Gly
1

<210> 2134
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2134

Gln Cys Thr Tyr Phe Asp Ser Ser Tyr Val Gly
1   5   10

<210> 2135
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2135

Gly Phe Ser Leu Ile Lys Ser His
1   5

<210> 2136
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2136

Ile Ala Tyr Asp Asp Asn Thr
1   5

<210> 2137
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2137

Ala Arg Glu Asp Ser Ser Gly Trp Gly Ser Phe Asn Leu
1   5   10

<210> 2138
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 2138

Gln Ser Val Tyr Ala Thr Asn Gln
1 5

<210> 2139
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2139

Ser Ala Ser
1

<210> 2140
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2140

Gln Gly Ala Tyr Asp Cys Ser Gly Gly Asp Cys Arg Ala
1 5 10

<210> 2141
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2141

Gly Ile Asp Leu Ser Arg Tyr Ala
1 5

<210> 2142
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2142

Ile Asp Asp Asn Asp Ile Thr
1 5

<210> 2143
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2143

Ala Arg Thr Ala Asp Tyr Ala Asp Tyr Ser Phe Gly Leu
1 5 10

<210> 2144
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2144

Glu Asn Ile Gly Asn Tyr
1 5

<210> 2145
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2145

Ala Ala Ser
1

<210> 2146
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2146

Gln Cys Thr Tyr Asp Asp Ser Glu Tyr Phe Val
1   5   10

<210> 2147
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2147

Gly Ile Asp Phe Ser Ser Tyr Trp
1   5

<210> 2148
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2148

Ile Tyr Asn Gly Asp Gly Ser Thr
1   5

<210> 2149
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2149

Ala Arg Asp Phe His Leu
1   5

<210> 2150
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2150

Gln Asn Ile Tyr Lys Asn Asn Tyr
1   5

<210> 2151
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2151

Ser Ala Ser
1

<210> 2152
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2152

Leu Gly Ser Val Ala Cys Ser Gly Pro Asp Cys Ile Val
1 5 10

<210> 2153
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2153

Gly Ile Asp Phe Ser Ser Tyr Gly
1 5

<210> 2154
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2154

Thr Tyr Pro Asp Tyr Gly Ser Thr
1 5

<210> 2155
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2155

Ala Ser Ser Ser Asn Gly Trp Gly Gly Gly Phe Tyr Phe Asp Leu
1 5 10 15

<210> 2156
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2156

Glu Asp Ile Tyr Ser Asn
1 5

<210> 2157
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2157

Gly Ala Ser
1

<210> 2158
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2158

Leu Gly Val Tyr Thr Tyr Ile Thr Thr Asp Pro Asn Ala
1 5 10

<210> 2159
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2159

Gly Ile Asp Phe Asn Asn Tyr Tyr
1 5

<210> 2160
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2160

Ile Tyr Thr Gly Ser Gly Ser Thr
1 5

<210> 2161
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2161

Ala Arg Pro Glu Phe Tyr Asp Thr Tyr Gly Tyr Ala Gly Tyr Gly Tyr
1 5 10 15

Ala Thr Pro Asn Tyr Phe Asn Phe
20

<210> 2162
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2162

Gln Ser Val Tyr Asn Asn Asn Leu
1 5

<210> 2163
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2163

Asp Ala Ser
1

<210> 2164
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2164

Leu Gly Gly Tyr Asp Asp Asp Ala Asp Tyr Asn Ala
1 5 10

<210> 2165
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2165

Gly Phe Ser Leu Ser Ser Ser Thr
1 5

<210> 2166
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2166

Ile Tyr Thr Asp Gly Asp Thr
1 5

<210> 2167
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2167

Ala Arg Arg Ala Asn Gly Tyr Asp Asp Phe Asp Pro
1 5 10

<210> 2168
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2168

Glu Ser Ile Ser Ser Tyr
1 5

<210> 2169
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2169

Tyr Glu Ser
1

<210> 2170
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2170

Gln Gln Gly Phe Ser Tyr Ile Asn Val Asp Asn Thr
1 5 10

<210> 2171
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2171

Gly Phe Ser Leu Asn Met Phe Tyr
1   5

<210> 2172
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2172

Ile Asp Ser Met Gly Ser Ala
1   5

<210> 2173
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2173

Ala Arg Ala Ile Asn Gly Asp Gly Ala Gly Asp Leu
1   5   10

<210> 2174
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2174

Glu Lys Ile Asp Ser Phe
1   5

<210> 2175
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR2

<400> 2175

Gly Ala Ser
1

<210> 2176
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2176

Gln Ser Thr Ala Asp Gly Ser Asp Tyr Val Gly Thr
1 5 10

<210> 2177
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2177

Gly Ile Asp Leu Ser Ser Asn Ala
1 5

<210> 2178
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2178

Ile Phe Pro Gly Asp Asn Ile
1 5

<210> 2179
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2179

Ala Arg Tyr His Ala Asp Asp Ser Val Asp Leu
1 5 10

<210> 2180
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2180

Gln Ser Ile Asn Gly Trp
1 5

<210> 2181
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2181

Arg Ala Ser
1

<210> 2182
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2182

His Leu Gly Asp Ile Tyr Ser Asn Ile Asp Tyr Val
1 5 10

<210> 2183
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2183

Gly Phe Ser Leu Asn Ser Tyr Asp
1   5

<210> 2184
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2184

Ile Ser Ala Ile Asp Asn Thr
1   5

<210> 2185
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2185

Ala Ser Asp Ser Tyr Gly Trp Ala Tyr Val Tyr Tyr Phe Asn Leu
1   5   10   15

<210> 2186
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2186

Glu Asp Ile Gly Ser Tyr
1   5

<210> 2187
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2187

Asp Ala Ser
1

<210> 2188
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2188

Gln Ser Ala Trp Tyr Ser Ser Asp Ser Asp Lys Met Ala
1 5 10

<210> 2189
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2189

Gly Phe Ser Leu Ser Thr Tyr Gly
1 5

<210> 2190
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2190

Ile Asp Gly Gly Asp Ser Pro
1 5

<210> 2191
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2191

Ala Arg Ile Ala Gly Ser Asn His Gly Pro Phe Asp Leu
1 5 10

<210> 2192
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2192

Glu Phe Ile Ser Asn Tyr
1 5

<210> 2193
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2193

Gly Ala Ser
1

<210> 2194
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2194

Gln Cys Thr Ala Tyr Gly Ser Ser Tyr Val Gly
1 5 10

<210> 2195
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2195

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 2196
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2196

Ile Asn Ser Tyr Ala Thr Thr
1 5

<210> 2197
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2197

Ala Arg Glu Ala Gly Tyr Ala Asp Leu
1 5

<210> 2198
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2198

Gln Ser Ile Ser Arg Tyr
1 5

<210> 2199
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2199

Glu Ala Ser
1

<210> 2200
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2200

Gln Gln Asp Tyr Asp Ser Thr Asp Val Gly Asn Thr
1 5 10

<210> 2201
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2201

Gly Phe Ser Phe Ser Ser Gly Tyr Tyr
1 5

<210> 2202
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2202

Ile Tyr Ser Gly Ser Asp Ser Ala
1 5

<210> 2203
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2203

Val Arg Asp Leu Gly Asp Tyr Asn Ala Leu Ser Tyr Thr Ile Asn Leu
1 5 10 15

<210> 2204
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR1

<400> 2204

Gln Ser Ile Ser Thr Asn
1 5

<210> 2205
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2205

Arg Ala Ser
1

<210> 2206
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2206

Gln Cys Ile Asp Tyr Asp Asp Tyr Gly Gly Thr
1 5 10

<210> 2207
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2207

Gly Phe Ser Leu Ser Asp Tyr Tyr
1 5

<210> 2208
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2208

Met Asn Ser Gly Gly Asn Ala
1 5

<210> 2209
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2209

Val Arg Asp Leu Ser Arg Phe Ser Leu
1 5

<210> 2210
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2210

Pro Ser Val Tyr Ser Asp Tyr
1 5

<210> 2211
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2211

Trp Ala Ser
1

<210> 2212
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2212

Ala Gly Gly Tyr Ser Gly Asn Ser Asp Val Trp Ala
1   5   10

<210> 2213
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2213

Gly Phe Ser Phe Asp Ile Asp Tyr Tyr
1   5

<210> 2214
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2214

Ile Tyr Ala Gly Ser Ser Gly Ser Thr
1   5

<210> 2215
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2215

Ala Arg His Tyr Ala Gly Tyr Ala Gly Asp Ala Tyr Ala Thr Asp Tyr
1   5   10   15

Tyr Phe Asn Leu
            20

<210> 2216
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2216

Gln Ser Val Ser Asn Phe
1 5

<210> 2217
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2217

Gly Ala Ser
1

<210> 2218
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2218

Gln Ser Gly Tyr Tyr Ser Ala Thr
1 5

<210> 2219
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2219

Gly Phe Asp Leu Ser Ser Tyr Tyr Tyr
1 5

<210> 2220
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2220

Phe Tyr Thr Asp Asp Ser Ala Asn Thr
1 5

<210> 2221
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2221

Ala Arg Asp Ala Ser Gly Trp Tyr Trp Phe Asn Leu
1 5 10

<210> 2222
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2222

Gln Ser Leu His Asp Asp Asn Ala
1 5

<210> 2223
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2223

Leu Ala Ser
1

<210> 2224
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2224

Gln Gly Ala Tyr Ser Gly Asp Asn Asn Ser
1 5 10

<210> 2225
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2225

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Val Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Val Ile Trp Asn Asn Gly Ala Thr His Tyr Ala Thr Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Ala Ser Thr Thr Val Asp Leu Lys Val Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Ala
85 90 95

Asn Asp Ala Trp Ser Thr Tyr Ser Asp Leu Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 2226
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2226

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

```
Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Thr Ile Thr Asn Tyr
            20                  25                  30

Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Lys Ala Ser Thr Leu Thr Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Asn Tyr Tyr Tyr Gly Ser Ser
                85                  90                  95

Ser Gly Tyr Gly Phe Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 2227
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2227

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Tyr Tyr Ala
            20                  25                  30

Val Thr Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Val Ile Tyr Asp Asn Gly Ala Thr Ala Phe Ala Thr Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Met Ser Lys Asn Ser Thr Thr Val Ala Leu Lys Val Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Ala
                85                  90                  95
```

```
Asn Asn Ala Trp Ser Thr Tyr Ser Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110


Val Thr Val Ser Ser
        115


<210>  2228
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  2228

Asp Ile Val Met Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Ser Ser Tyr
            20                  25                  30


Leu Ser Trp Tyr Gln Gln Lys Leu Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Lys Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Tyr Tyr Ser Gly Ser Ile
                85                  90                  95


Ser Gly Tyr Gly Phe Val Phe Gly Gly Gly Thr Gly Val Val Val Lys
            100                 105                 110


<210>  2229
<211>  121
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VH

<400>  2229

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15
```

```
Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Thr Ile Ser Ser Tyr His
            20                  25                  30

Met Ile Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Ile Gly
        35                  40                  45

Asp Ile Tyr Gly Gly Thr Ala Thr Thr Asp Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Met
65                  70                  75                  80

Thr Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ala
                85                  90                  95

Arg Tyr Ser Gly Gly Ser Tyr Ala Asn Tyr Val Phe Asn Leu Trp Gly
            100                 105                 110

Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 2230
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2230

```
Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Ser Ile Ser Ser Tyr
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Arg Thr Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Gly Tyr Asp Trp Ser Ser Ser
                85                  90                  95

Asn Arg Tyr Asp Asn Thr Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 2231
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2231

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Arg Tyr Asp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Val Ile Ser Ser Ser Gly Gly Thr Asn Tyr Ala Asn Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Gly
                85                  90                  95

Asp Tyr Trp Asp Phe Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 2232
<211> 110
<212> PRT
<213> Artificial Sequence

<220>

<223> VL

<400> 2232

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                  10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asn Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Gly Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Phe Pro Gly Leu Asp
                85                  90                  95

Thr Val Ala Ala Phe Gly Gly Gly Thr Glu Ala Val Val Thr
            100                 105                 110
```

<210> 2233
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2233

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Thr Ile Ser Asp Phe His
            20                  25                  30

Val Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Thr Ile Ile Thr Ser Ala Ser Thr Thr Ala Tyr Ala Thr Trp Ala Arg
    50                  55                  60
```

Gly Arg Phe Thr Ile Ser Lys Ser Ser Thr Thr Val Asn Leu Lys Ile
65 70 75 80

Val Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser
85 90 95

Thr Tyr Thr Asp Thr Ser Gly Tyr Tyr Phe Asp Phe Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 2234
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2234

Ala Gln Val Leu Thr Gln Thr Ala Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Ile Ile Asn Cys Gln Ser Ser Gln Ser Ile Tyr Asn Gly
20 25 30

Asn Arg Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Ser Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Ala Ile Ser Asp Val
65 70 75 80

Gln Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Leu Gly Ser Tyr Asp Cys
85 90 95

Asp Ser Ala Asp Cys Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val
100 105 110

Glu

<210> 2235
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2235

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Ser Tyr Ala
20 25 30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Ile Ile Ser Thr Ser Gly Ile Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Met Val Asp Leu Lys Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Leu Asn
85 90 95

Gly Phe Asp Asp Tyr Val Arg Tyr Phe Asp Phe Trp Gly Leu Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 2236
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2236

Ala Ile Glu Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Ser Ile Ala Ser Asn
20 25 30

```
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ala Ala Ser Tyr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Ser Ala Phe Tyr Val Ser Ser
                85                  90                  95

Ser Asp Asn Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 2237
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2237

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Asp
            20                  25                  30

Val Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Phe Ile Gly Ser Asp Gly Ser Ala His Tyr Ala Thr Trp Val Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Asp Trp
                85                  90                  95

Asn Asp Tyr Trp Ala His Asp Leu Trp Gly Pro Gly Thr Leu Val Thr
            100                 105                 110
```

Val Ser Ser
        115

<210> 2238
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2238

Ala Gln Val Leu Thr Gln Thr Thr Ser Pro Val Ser Ala Ala Val Gly
1   5   10   15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ile Val Thr Ser Lys
            20   25   30

Ser Ala Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Arg Leu
        35   40   45

Leu Ile Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe
    50   55   60

Ser Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65   70   75   80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Tyr Tyr Asn
                85   90   95

Ser Gly Asp Leu Asn Pro Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100   105   110

<210> 2239
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2239

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1   5   10   15

```
Leu Thr Leu Thr Cys Thr Ala Ser Gly Phe Ser Leu Ser Ser Tyr Asp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Tyr Ile Ser Ser Ser Gly Asn Thr Tyr Tyr Ala Ser Trp Ala Lys Ser
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Lys Ile Thr
65                  70                  75                  80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Glu Gly
                85                  90                  95

Asp Tyr Trp Asp Phe Asn Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 2240
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2240

```
Ala Gln Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ala Val Gly
1               5                   10                  15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Gln Ser Ile Ser Asn Leu
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Arg Leu Leu Ile
        35                  40                  45

Tyr Arg Ala Ser Thr Leu Ala Ser Gly Val Pro Ser Arg Phe Lys Gly
    50                  55                  60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80
```

```
Glu Asp Ala Ala Thr Tyr Tyr Cys Ala Gly Gly Phe Pro Gly Leu Asp
                85                  90                  95

Thr Gly Ala Thr Phe Gly Gly Gly Thr Glu Ala Val Val Thr
            100                 105                 110
```

<210> 2241
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2241

```
Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                  10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Asn Asp Tyr Trp
            20                  25                  30

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
        35                  40                  45

Tyr Ile Asp Val Gly Gly Ser Leu Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Arg Thr Ser Thr Thr Val Asp Leu Lys Met Thr
65                  70                  75                  80

Ser Leu Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Gly
                85                  90                  95

Leu Thr Tyr Gly Phe Asp Leu Trp Gly Pro Gly Thr Leu Val Thr Val
            100                 105                 110

Ser Ser
```

<210> 2242
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2242

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Ser Glu Pro Val Gly
1 5 10 15

Gly Thr Val Thr Ile Asn Cys Gln Ala Ser Glu Asp Ile Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Asp Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Ala
50 55 60

Ser Gly Ser Gly Thr Glu Tyr Ala Leu Thr Ile Ser Asp Leu Glu Ser
65 70 75 80

Ala Asp Ala Ala Thr Tyr Tyr Cys His Tyr Tyr Ala Thr Ile Ser Gly
85 90 95

Leu Gly Val Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 2243
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2243

Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Thr Tyr Ala
20 25 30

Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly
35 40 45

Val Val Tyr Asp Asn Gly Tyr Ile Ser His Ala Thr Trp Val Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Gly Leu Glu Ile Thr
65 70 75 80

```
Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Ser Ala
                85                  90                  95


Asp Gly Ser Trp Ser Thr Tyr Phe Asn Leu Trp Gly Gln Gly Thr Leu
            100                 105                 110


Val Thr Val Ser Ser
        115


<210>  2244
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  VL

<400>  2244

Asp Ile Val Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1               5                   10                  15


Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Glu Ser Ile Ser Asn Tyr
            20                  25                  30


Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Lys Ala Ser Thr Leu Ala Ser Gly Val Ser Ser Arg Phe Lys Gly
    50                  55                  60


Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Asp Leu Glu Ser
65                  70                  75                  80


Ala Asp Ala Ala Thr Tyr Tyr Cys Gln Thr Asn Tyr Cys Cys Ser Ser
                85                  90                  95


Ser Asp Asn Gly Phe Ala Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110


<210>  2245
<211>  115
<212>  PRT
<213>  Artificial Sequence

<220>
```

<223> VH

<400> 2245

Gln Ser Leu Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1 5 10 15

Leu Thr Leu Thr Cys Thr Val Ser Gly Ile Asp Leu Ser Ser Tyr His
20 25 30

Met Cys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
35 40 45

Tyr Ile Ala Tyr Gly Gly Asn Thr Tyr Tyr Ala Asn Trp Ala Lys Gly
50 55 60

Arg Phe Thr Ile Ser Lys Thr Ser Thr Thr Val Asp Leu Arg Ile Thr
65 70 75 80

Ser Pro Thr Thr Glu Asp Thr Ala Thr Tyr Phe Cys Ala Arg Gly Tyr
85 90 95

Ser Glu Asp Ser Tyr Trp Gly Leu Trp Gly Pro Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 2246
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2246

Ala Tyr Asp Met Thr Gln Thr Pro Ala Ser Val Glu Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Lys Cys Gln Ala Ser Gln Asn Ile Glu Asn Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile
35 40 45

```
Tyr Asp Thr Ser Lys Leu Thr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Gly Val Gln Ser
65                  70                  75                  80

Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asp Tyr Gly Ile Ile Phe
                85                  90                  95

Val Asp Asn Ile Phe Gly Gly Gly Thr Glu Val Val Val Lys
            100                 105                 110
```

<210> 2247
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2247

```
Gln Ser Val Glu Glu Ser Gly Gly Arg Leu Val Thr Pro Gly Thr Pro
1               5                   10                  15

Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asp Tyr Tyr
            20                  25                  30

Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Ile Gly
        35                  40                  45

Ile Met Ser Gly Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys Gly
    50                  55                  60

Arg Phe Thr Ile Ser Lys Thr Ser Ser Thr Thr Leu Glu Leu Lys Ile
65                  70                  75                  80

Thr Ser Pro Thr Thr Glu Asp Thr Ala Ile Tyr Phe Cys Ala Arg Asp
                85                  90                  95

Gly Asp Tyr Ala Gly Trp Gly Tyr Ala Thr Gly Ala Phe Asp Pro Trp
            100                 105                 110

Gly Pro Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 2248
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2248

Ala Ala Val Leu Thr Gln Thr Pro Ser Pro Val Ser Ala Ala Val Gly
1 5 10 15

Gly Thr Val Thr Ile Ser Cys Gln Ala Ser Gln Ser Val Val Gly Asn
20 25 30

Ser Leu Leu Ser Trp Phe Gln Lys Lys Pro Gly Gln Pro Pro Lys Leu
35 40 45

Leu Ile Tyr Ser Ala Ser Ser Leu Ala Ser Gly Val Pro Ser Arg Phe
50 55 60

Lys Gly Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Asp Leu
65 70 75 80

Glu Ser Asp Asp Ala Ala Thr Tyr Tyr Cys Thr Gly Arg Tyr Asn Ser
85 90 95

Asp Thr Asp Thr Phe Val Phe Gly Gly Gly Thr Glu Val Val Val Lys
100 105 110

<210> 2249
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2249

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 2250
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 2250

Ile Trp Asn Asn Gly Ala Thr
1 5

<210> 2251
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2251

Ala Arg Ser Ala Asn Asp Ala Trp Ser Thr Tyr Ser Asp Leu
1 5 10

<210> 2252
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2252

Gln Thr Ile Thr Asn Tyr
1 5

<210> 2253
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2253

Lys Ala Ser
1

<210> 2254
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2254

Gln Asn Tyr Tyr Tyr Gly Ser Ser Ser Gly Tyr Gly Phe Val
1 5 10

<210> 2255
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2255

Gly Phe Ser Leu Thr Tyr Tyr Ala
1 5

<210> 2256
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2256

Ile Tyr Asp Asn Gly Ala Thr
1 5

<210> 2257
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2257

Ala Arg Ser Ala Asn Asn Ala Trp Ser Thr Tyr Ser Asn Leu
1 5 10

<210> 2258
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2258

Glu Asp Ile Ser Ser Tyr
1   5

<210> 2259
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2259

Lys Ala Ser
1

<210> 2260
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2260

Gln Ser Tyr Tyr Ser Gly Ser Ile Ser Gly Tyr Gly Phe Val
1   5   10

<210> 2261
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2261

Gly Phe Thr Ile Ser Ser Tyr His
1   5

<210> 2262
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2262

Ile Tyr Gly Gly Thr Ala Thr Thr
1   5

<210> 2263
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2263

Ala Arg Ala Arg Tyr Ser Gly Gly Ser Tyr Ala Asn Tyr Val Phe Asn
1 5 10 15

Leu

<210> 2264
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2264

Gln Ser Ile Ser Ser Tyr
1 5

<210> 2265
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2265

Arg Thr Ser
1

<210> 2266
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2266

Gln Gly Tyr Asp Trp Ser Ser Ser Asn Arg Tyr Asp Asn Thr
1   5   10

<210> 2267
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2267

Gly Phe Ser Leu Ser Arg Tyr Asp
1   5

<210> 2268
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2268

Ile Ser Ser Ser Gly Gly Thr
1   5

<210> 2269
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2269

Ala Arg Glu Gly Asp Tyr Trp Asp Phe Asn Leu
1   5   10

<210> 2270
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2270

Gln Ser Ile Ser Asn Leu
1   5

<210> 2271
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2271

Gly Ala Ser
1

<210> 2272
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2272

Ala Gly Gly Phe Pro Gly Leu Asp Thr Val Ala Ala
1 5 10

<210> 2273
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2273

Gly Phe Thr Ile Ser Asp Phe His
1 5

<210> 2274
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2274

Ile Ile Thr Ser Ala Ser Thr Thr
1 5

<210> 2275
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2275

Ala Arg Ser Thr Tyr Thr Asp Thr Ser Gly Tyr Tyr Phe Asp Phe
1 5 10 15

<210> 2276
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2276

Gln Ser Ile Tyr Asn Gly Asn Arg
1 5

<210> 2277
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2277

Ser Ala Ser
1

<210> 2278
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2278

Leu Gly Ser Tyr Asp Cys Asp Ser Ala Asp Cys Phe Ala
1 5 10

<210> 2279
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2279

Gly Phe Ser Leu Ser Ser Tyr Ala
1 5

<210> 2280
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2280

Ile Ser Thr Ser Gly Ile Thr
1 5

<210> 2281
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2281

Ala Arg Leu Asn Gly Phe Asp Asp Tyr Val Arg Tyr Phe Asp Phe
1 5 10 15

<210> 2282
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2282

Glu Ser Ile Ala Ser Asn
1 5

<210> 2283
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2283

Ala Ala Ser
1

<210> 2284
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2284

Gln Ser Ala Phe Tyr Val Ser Ser Ser Asp Asn Ala
1 5 10

<210> 2285
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2285

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 2286
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2286

Ile Gly Ser Asp Gly Ser Ala
1 5

<210> 2287
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR3

<400> 2287

Ala Arg Asp Trp Asn Asp Tyr Trp Ala His Asp Leu
1 5 10

<210> 2288
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2288

Gln Ile Val Thr Ser Lys Ser Ala
1 5

<210> 2289
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2289

Lys Ala Ser
1

<210> 2290
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2290

Ala Gly Gly Tyr Tyr Asn Ser Gly Asp Leu Asn Pro
1 5 10

<210> 2291
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2291

Gly Phe Ser Leu Ser Ser Tyr Asp
1 5

<210> 2292
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2292

Ile Ser Ser Ser Gly Asn Thr
1 5

<210> 2293
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2293

Ala Arg Glu Gly Asp Tyr Trp Asp Phe Asn Leu
1 5 10

<210> 2294
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2294

Gln Ser Ile Ser Asn Leu
1 5

<210> 2295
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2295

Arg Ala Ser
1

<210> 2296
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2296

Ala Gly Gly Phe Pro Gly Leu Asp Thr Gly Ala Thr
1 5 10

<210> 2297
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2297

Gly Phe Ser Leu Asn Asp Tyr Trp
1 5

<210> 2298
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2298

Ile Asp Val Gly Gly Ser Leu
1 5

<210> 2299
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2299

Ala Arg Gly Gly Leu Thr Tyr Gly Phe Asp Leu
1 5 10

<210> 2300
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2300

Glu Asp Ile Ser Ser Tyr
1 5

<210> 2301
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2301

Gly Ala Ser
1

<210> 2302
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2302

His Tyr Tyr Ala Thr Ile Ser Gly Leu Gly Val Ala
1 5 10

<210> 2303
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2303

Gly Phe Ser Leu Ser Thr Tyr Ala
1 5

<210> 2304
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2304

Val Tyr Asp Asn Gly Tyr Ile
1 5

<210> 2305
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2305

Ala Arg Ser Ala Asp Gly Ser Trp Ser Thr Tyr Phe Asn Leu
1 5 10

<210> 2306
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2306

Glu Ser Ile Ser Asn Tyr
1 5

<210> 2307
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2307

Lys Ala Ser
1

<210> 2308
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2308

Gln Thr Asn Tyr Cys Cys Ser Ser Ser Asp Asn Gly Phe Ala
1 5 10

<210> 2309
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2309

Gly Ile Asp Leu Ser Ser Tyr His
1 5

<210> 2310
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2310

Ile Ala Tyr Gly Gly Asn Thr
1 5

<210> 2311
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2311

Ala Arg Gly Tyr Ser Glu Asp Ser Tyr Trp Gly Leu
1 5 10

<210> 2312
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2312

Gln Asn Ile Glu Asn Tyr
1 5

<210> 2313
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2313

Asp Thr Ser
1

<210> 2314
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2314

Gln Gln Asp Tyr Gly Ile Ile Phe Val Asp Asn Ile
1 5 10

<210> 2315
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2315

Gly Phe Ser Leu Ser Asp Tyr Tyr
1 5

<210> 2316
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> HCDR2

<400> 2316

Met Ser Gly Ser Gly Ser Thr
1 5

<210> 2317
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2317

Ala Arg Asp Gly Asp Tyr Ala Gly Trp Gly Tyr Ala Thr Gly Ala Phe
1 5 10 15

Asp Pro

<210> 2318
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2318

Gln Ser Val Val Gly Asn Ser Leu
1 5

<210> 2319
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2319

Ser Ala Ser
1

<210> 2320
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR3

<400> 2320

Thr Gly Arg Tyr Asn Ser Asp Thr Asp Thr Phe Val
1 5 10

<210> 2321
<211> 141
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 2321

Met Gly Trp Ser Trp Ile Phe Leu Phe Leu Leu Ser Gly Thr Ala Gly
1 5 10 15

Val Leu Ser Glu Val Gln Leu Gln Gln Ser Gly Pro Asp Leu Val Lys
20 25 30

Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe
35 40 45

Thr Glu Tyr Ile Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu
50 55 60

Glu Trp Ile Gly Gly Ile Ile Pro Asn Asn Gly Gly Thr Ser Tyr Asn
65 70 75 80

Gln Lys Phe Lys Asp Lys Ala Thr Met Thr Val Asp Lys Ser Ser Ser
85 90 95

Thr Gly Tyr Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
100 105 110

Tyr Tyr Cys Thr Arg Arg Glu Val Tyr Gly Arg Asn Tyr Tyr Ala Leu
115 120 125

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
130 135 140

<210> 2322
<211> 127

<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 2322

Met Arg Ala Pro Ala Gln Phe Leu Gly Leu Leu Leu Leu Cys Phe Gln
1 5 10 15

Gly Thr Arg Cys Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser
20 25 30

Ala Ser Leu Gly Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Gln Gly
35 40 45

Ile Asn Asn Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val
50 55 60

Lys Leu Leu Ile Tyr Tyr Thr Ser Ser Leu His Ser Gly Val Pro Ser
65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser
85 90 95

Asn Leu Glu Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser
100 105 110

Asn Leu Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
115 120 125

<210> 2323
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR1

<400> 2323

Gly Tyr Thr Phe Thr Glu Tyr Ile
1 5

<210> 2324
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR2

<400> 2324

Ile Ile Pro Asn Asn Gly Gly Thr
1   5

<210> 2325
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> HCDR3

<400> 2325

Thr Arg Arg Glu Val Tyr Gly Arg Asn Tyr Tyr Ala Leu Asp Tyr
1   5   10   15

<210> 2326
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR1

<400> 2326

Gln Gly Ile Asn Asn Tyr
1   5

<210> 2327
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> LCDR2

<400> 2327

Tyr Thr Ser
1

<210> 2328
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> LCDR3

<400> 2328

Gln Gln Tyr Ser Asn Leu Pro Tyr Thr
1 5