SEQUENCE LISTING

<110> Heinrich-Pette-Institut Leibniz-Institut für Experimentelle Virologie
Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V.

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<170> PatentIn version 3.5

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    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu Xaa Leu Gln Xaa
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Xaa Leu Asn
                85                  90                  95
Met Leu His Arg Arg Xaa Gly Leu Pro Arg Xaa Xaa Asp Ser Xaa Ala
            100                 105                 110
Val Ser Leu Val Xaa Arg Arg Ile Arg Xaa Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Xaa Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Xaa Xaa Gln
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145                 150                 155                 160
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Ile Ala Arg Ile Arg Xaa Xaa Asp Ile Ser Xaa Thr Xaa Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Xaa Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
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Val Glu Lys Ala Leu Ser Leu Xaa Val Thr Xaa Leu Val Glu Arg Trp
    210                 215                 220
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225                 230                 235                 240
Xaa Val Arg Xaa Xaa Gly Val Ala Xaa Pro Ser Ala Thr Xaa Gln Leu
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Ser Thr Ser Ala Leu Gln Gly Ile Phe Xaa Ala Xaa His Xaa Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Xaa Xaa Ser Gly Xaa Arg Tyr Leu Ala Trp Ser Gly
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His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
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Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Thr
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Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
85 90 95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Leu Ser Asp Ser Asp Ala
100 105 110
Val Ser Leu Val Met Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
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Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Leu Asp Gln
130 135 140
Val Arg Ser Leu Thr Glu Asp Ser Asp Arg Cys Arg Asp Ile Arg Asn
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Leu Ala Leu Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
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180 185 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
195 200 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
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225 230 235 240
Pro Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
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260 265 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
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Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
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Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Thr
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
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Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Ala Asp Phe Asp Gln
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        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
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                245                 250                 255
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Tyr Gly Ala Lys Asp Asp Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
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Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Leu Asp Gln
    130                 135                 140
Val His Ser Leu Met Gly Asn Ser Asp Arg Gly Gln Asp Ile Arg Asn
145                 150                 155                 160
Leu Ala Leu Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Arg Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Ile Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Gly Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Glu Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 43
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-27

<400> 43

```
Met Ser Glu Leu Leu Thr Leu His Gln Asn Leu Ser Ala Leu Leu Val
1               5                  10                  15
Asp Ala Thr Ser Asp Glu Ala Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Lys His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Ile Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Gln Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 44
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-31

<400> 44

```
Met Ser Asp Leu Gln Thr Leu His Arg Asn Leu Ser Ala Leu Leu Val
1               5                  10                  15
Asp Ala Ser Ser Asp Glu Ala Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Tyr Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asp Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Ala
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Glu Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Ile Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Ala His Arg Leu Ile
            260                 265                 270
His Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Pro Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Asn
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asp
            340
```

<210> 45
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-37

<400> 45

```
Met Ser Glu Leu Leu Thr Val His Gln Asn Leu Ser Ala Leu Leu Val
1               5                  10                  15
Asp Ala Thr Ser Asp Glu Thr Cys Lys Asn Leu Met Asp Val Phe Arg
```

```
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Arg Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Thr Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asn Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Ser Gly Val Ala Val Pro Ser Ala Thr Ser Arg Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Gly Ala Ala His Cys Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 46
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-43

<400> 46

```
Met Ser Glu Leu Gln Thr Leu His Gln Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Ser Asn Asn Arg Lys Trp Phe
```

```
    50                  55                  60
Pro Ala Asp Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Ala Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Ile Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser His Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Thr Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Arg Asn Gly Val Ala Val Pro Ser Ala Thr Cys Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Gly Ala Ala His Cys Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 47
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-46

<400> 47

```
Met Ser Asp Leu Gln Thr Val His Arg Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
```

```
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asp Ser Asp Arg Gly Gln Asp Ile Arg Asn
145                 150                 155                 160
Leu Ala Leu Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Phe Val Ser Gly Val Ala Asn Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asp
            340
```

<210> 48
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-48

<400> 48

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

```
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Leu Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Cys Gln Asp Ile Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Lys Thr Lys Thr Leu Val Ser Thr Thr Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Glu Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asp Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Asp Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Pro Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Glu Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Ala Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 49
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-63

<400> 49

```
Met Ser Glu Leu Leu Thr Leu His Gln Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Ala Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Tyr Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Ala
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Asn
```

```
145                 150                 155                 160
Leu Ala Leu Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Arg Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Ile Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Ala His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Gly Asp Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 50
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-74

<400> 50

```
Met Ser Asp Leu Gln Thr Val His Arg Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Arg Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Arg
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Cys Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
```

```
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Arg Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Glu Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Gly Asp Asp
            340
```

<210> 51
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-78

<400> 51

```
Met Ser Asp Leu Gln Thr Val His Arg Asn Leu Ser Ala Leu Leu Ile
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Thr Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Thr Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Asn
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Ile Thr Lys Leu Val Glu Arg Trp
```

```
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Ile Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Ala Ala Ala His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Gly
            340
```

<210> 52
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-89

<400> 52

```
Met Ser Asp Leu Leu Thr Val His Arg Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Ala Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Tyr Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Leu Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asp Ser Asp Arg Cys Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Arg Asn Gly Val Ala Ala Pro Ser Ala Thr Ser Gln Leu
```

```
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Glu Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asp
            340
```

<210> 53
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-94

<400> 53

```
Met Ser Lys Leu Leu Thr Val His Arg Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Gly Val Arg Asp Tyr Leu Leu Tyr Leu Gln Ala
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Leu Ser Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Leu Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Gly Ser Ser Glu Arg Cys Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Leu Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Glu Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Asp Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
```

```
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asn
            340
```

<210> 54
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-96

<400> 54

```
Met Ser Lys Leu Gln Thr Val His Arg Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Ala
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Arg Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Pro Val Arg Ile Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
```

305 310 315 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
325 330 335
Arg Leu Leu Glu Asp Gly Asp
340

<210> 55
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-101

<400> 55

Met Ser Lys Leu Leu Thr Val His Gln Asn Leu Ser Ala Leu Leu Val
1 5 10 15
Asp Ala Thr Ser Asp Glu Ala Arg Lys Asn Leu Ala Asp Val Phe Arg
20 25 30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
35 40 45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asp Asn Arg Lys Trp Phe
50 55 60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Thr
65 70 75 80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
85 90 95
Met Leu His Arg Arg Ser Gly Leu Ala Arg Pro Gly Asp Ser Asn Ala
100 105 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
115 120 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
130 135 140
Val Arg Ser Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Thr
145 150 155 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
165 170 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
180 185 190
Met Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
195 200 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
210 215 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225 230 235 240
Pro Val Arg Ile Asn Gly Val Ala Ala Pro Ser Ala Ala Ser Gln Leu
245 250 255
Ser Thr Tyr Thr Leu Gln Gly Ile Phe Lys Ala Ala His Arg Leu Ile
260 265 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
275 280 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
290 295 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305 310 315 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
325 330 335
Arg Leu Leu Glu Asp Gly Asp

340

<210> 56
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-103

<400> 56

Met Ser Glu Leu Gln Thr Val His His Ser Leu Ser Ala Leu Leu Val
1 5 10 15
Asp Ala Thr Ser Asp Glu Ala Arg Lys Asn Leu Ala Asp Val Phe Arg
20 25 30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
35 40 45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
50 55 60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Thr
65 70 75 80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
85 90 95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
100 105 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
115 120 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Glu Gln
130 135 140
Val Arg Ser Leu Met Glu Asn Ser Asp Arg Cys Gln Asp Ile Arg Ser
145 150 155 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
165 170 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
180 185 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Thr Gly
195 200 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
210 215 220
Ile Ser Ala Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225 230 235 240
Pro Val Arg Ile Asn Gly Val Ala Ala Pro Ser Ala Ala Ser Gln Leu
245 250 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Ala Ala Ala His Arg Leu Ile
260 265 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
275 280 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
290 295 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Glu Ser
305 310 315 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
325 330 335
Arg Leu Leu Glu Asp Asp Asp
340

<210> 57

<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-106

<400> 57

```
Met Ser Glu Leu Gln Thr Leu His Arg Asn Leu Ser Ala Leu Leu Val
1               5                  10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 58
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-135

<400> 58

```
Met Ser Lys Leu Leu Thr Val His Gln Asn Leu Ser Ala Leu Leu Val
1               5                  10                  15
Asp Ala Thr Ser Asp Glu Thr Arg Lys Asn Leu Met Gly Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Val Ala Trp Cys Lys Leu Asn Asn Arg Arg Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Thr Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Gly Asn Ser Asp Arg Gly Gln Asp Ile Arg Ser
145                 150                 155                 160
Leu Ala Phe Leu Gly Ile Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser Arg Thr Asn Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Arg Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Gly Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Gly Ala Ala His Cys Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Asp Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Glu Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asp
            340
```

<210> 59
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-002

<400> 59

```
Met Ser Asn Leu Leu Thr Leu His Gln Asn Leu Ser Ala Leu Leu Val
1               5                  10                  15
Asp Val Thr Ser Asp Glu Val Arg Lys Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Leu Ser Asp Ser Asn Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asp Ser Asp Arg Gly Gln Asp Ile Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Ile Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Arg Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Ala Ala Thr His Arg Gln Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asn
            340
```

<210> 60
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-023

<400> 60

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

```
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Arg Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Gly Tyr Leu Leu His Leu Gln Ala
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Leu Ser Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Val Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Ile Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Ile Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Arg Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Ala His His Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Pro Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 61
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-030

<400> 61

```
Met Ser Asn Leu Leu Thr Leu His Gln Asn Leu Ser Ala Leu Leu Val
1               5                   10                  15
Asp Val Thr Ser Asp Glu Val Arg Glu Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
```

```
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ala Leu Met Gly Asn Ser Asn Arg Cys Gln Asp Ile Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Ile Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asp
            340
```

<210> 62
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-031

<400> 62

```
Met Ser Asn Leu Leu Thr Leu His Gln Asn Leu Ser Ala Leu Leu Val
1                   5                   10                  15
Asp Val Thr Ser Asp Glu Ala Arg Lys Asn Leu Met Asp Val Leu Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
```

```
                85                  90                  95
Met Leu His Arg Arg Phe Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Met Arg Arg Ile Arg Lys Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asn Ser Asp Cys Cys Gln Asp Met Arg Thr
145                 150                 155                 160
Leu Ala Phe Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Ile Lys Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Val Asn Gly Val Ala Ala Pro Ser Ala Thr Asn Gln Leu
                245                 250                 255
Ser Ala Tyr Thr Leu Gln Arg Ile Phe Ala Ala Ala His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Asp Ser Gly Arg Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Pro Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 63
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-033

<400> 63

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

```
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Leu Asp Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asp Ser Asp Arg Cys Gln Asp Ile Arg Asn
145                 150                 155                 160
Leu Ala Leu Leu Gly Val Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Lys Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Ser Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Lys Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asn Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Gln Val Arg Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Arg Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Ala His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Asn Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Asp Asp
            340
```

<210> 64
<211> 343
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre3-039

<400> 64

```
Met Ser Asn Leu Leu Thr Ser His Gln Asn Leu Ser Ala Leu Leu Val
1                   5                   10                  15
Asp Val Thr Ser Asp Glu Val Arg Lys Asn Leu Met Asp Val Phe Arg
            20                  25                  30
Asp Arg Gln Ala Phe Ser Glu His Thr Trp Lys Val Leu Leu Ser Val
        35                  40                  45
Cys Arg Thr Trp Ala Ala Trp Cys Lys Leu Asn Asn Arg Lys Trp Phe
    50                  55                  60
Pro Ala Glu Pro Glu Asp Val Arg Asp Tyr Leu Leu His Leu Gln Val
65                  70                  75                  80
Arg Gly Leu Ala Val Asn Thr Ile Gln Gln His Leu Ala Gln Leu Asn
                85                  90                  95
Met Leu His Arg Arg Ser Gly Leu Pro Arg Pro Gly Asp Ser Asp Ala
            100                 105                 110
Val Ser Leu Val Ile Arg Arg Ile Arg Arg Glu Asn Val Asp Ala Gly
        115                 120                 125
Glu Arg Ala Lys Gln Ala Leu Ala Phe Glu Arg Thr Asp Phe Glu Gln
    130                 135                 140
Val Arg Ser Leu Met Glu Asn Ser Asp Arg Gly Gln Asp Ile Arg Asn
```

```
145                 150                 155                 160
Leu Ala Leu Leu Gly Ile Ala Tyr Asn Thr Leu Leu Arg Ile Ser Glu
                165                 170                 175
Ile Ala Arg Ile Arg Val Arg Asp Ile Ser Arg Thr Asp Gly Gly Arg
            180                 185                 190
Met Leu Ile His Ile Gly Arg Thr Lys Thr Leu Val Ser Thr Ala Gly
        195                 200                 205
Val Glu Lys Ala Leu Ser Leu Gly Val Thr Glu Leu Val Glu Arg Trp
    210                 215                 220
Ile Ser Val Ser Gly Val Ala Asp Asp Pro Asn Asn Tyr Leu Phe Cys
225                 230                 235                 240
Arg Val Lys Lys Asn Gly Val Ala Val Pro Ser Ala Thr Ser Gln Leu
                245                 250                 255
Ser Thr Ser Ala Leu Gln Gly Ile Phe Glu Ala Thr His Arg Leu Ile
            260                 265                 270
Tyr Gly Ala Lys Asp Gly Ser Gly Gln Arg Tyr Leu Ala Trp Ser Gly
        275                 280                 285
His Ser Ala Arg Val Gly Ala Ala Arg Asp Met Ala Arg Ala Gly Val
    290                 295                 300
Ser Ile Ala Glu Ile Met Gln Ala Gly Gly Trp Thr Thr Val Asp Ser
305                 310                 315                 320
Val Met Asn Tyr Ile Arg Asn Leu Asp Ser Glu Thr Gly Ala Met Val
                325                 330                 335
Arg Leu Leu Glu Asp Gly Asp
            340
```

<210> 65
<211> 351
<212> PRT
<213> Artificial Sequence

<220>
<223> Tre 1.0

<220>
<221> Signal
<222> (2)..(9)
<223> Nuclear localisation sequence (NLS) for directing the protein into the nucleus of mammalian cells

<400> 65

```
Met Val Pro Lys Lys Lys Arg Lys Val Ser Asn Leu Leu Thr Leu His
1               5                   10                  15
His Ser Leu Pro Ala Leu Pro Ala Asp Ala Thr Ser Asp Glu Val Arg
            20                  25                  30
Lys Asn Leu Met Asp Val Phe Arg Asp Arg Pro Ala Phe Ser Glu His
        35                  40                  45
Thr Trp Glu Met Leu Leu Ser Val Cys Arg Ser Trp Ala Ala Trp Cys
    50                  55                  60
Lys Leu Asn Asn Arg Lys Trp Phe Pro Ala Glu Pro Glu Asp Val Arg
65                  70                  75                  80
Asp Tyr Leu Leu His Leu Gln Ala Arg Gly Leu Ala Val Lys Thr Ile
                85                  90                  95
Gln Gln His Leu Cys Arg Leu Asn Met Leu His Arg Arg Ser Gly Leu
            100                 105                 110
Pro Arg Pro Ser Asp Ser Asn Ala Val Ser Leu Val Met Arg Arg Ile
        115                 120                 125
```

```
Arg Lys Glu Asn Val Asp Ala Gly Glu Arg Thr Lys Gln Ala Leu Ala
    130                 135                 140
Phe Glu Arg Thr Asp Phe Asp Gln Val Arg Ser Leu Met Glu Asn Ser
145                 150                 155                 160
Asp Arg Cys Gln Asp Ile Arg Asn Leu Ala Phe Leu Gly Val Ala Tyr
                165                 170                 175
Asn Thr Leu Leu Arg Ile Ala Glu Ile Ala Arg Ile Arg Val Lys Asp
            180                 185                 190
Ile Ser Arg Thr Asp Gly Gly Arg Met Leu Ile His Ile Gly Arg Thr
        195                 200                 205
Lys Thr Leu Val Ser Thr Ala Gly Val Glu Lys Ala Leu Ser Leu Gly
    210                 215                 220
Val Thr Lys Leu Val Glu Arg Trp Ile Ser Val Ser Gly Val Ala Asp
225                 230                 235                 240
Asp Pro Asn Asn Tyr Leu Phe Cys Arg Val Arg Arg Tyr Gly Val Ala
                245                 250                 255
Ala Pro Ser Ala Thr Ser Gln Leu Ser Thr Tyr Ala Leu Gln Arg Ile
            260                 265                 270
Phe Glu Ala Thr His Arg Leu Ile Tyr Gly Ala Lys Asp Asp Ser Gly
        275                 280                 285
Gln Arg Tyr Leu Ala Trp Ser Gly His Ser Ala Arg Val Gly Ala Ala
    290                 295                 300
Arg Asp Met Ala Arg Ala Gly Val Ser Ile Pro Glu Ile Met Gln Ala
305                 310                 315                 320
Gly Gly Trp Thr Thr Val Asn Ser Val Met Asn Tyr Ile Arg Asn Leu
                325                 330                 335
Asp Ser Glu Thr Gly Ala Met Val Arg Leu Leu Glu Asp Gly Asp
            340                 345                 350
```