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<170> PatentIn version 3.3

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Tyr Ile Tyr Pro Glu His Gly Thr Ile Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

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

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

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Tyr Ile Tyr Pro Glu His Gly Ser Ile Thr Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

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<400> 11

Tyr Ile Tyr Pro Arg Asp Asp Phe Ala Lys Val Asn Glu Lys Phe Lys
1 5 10 15

Gly

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<400> 12

Tyr Ile Tyr Pro Glu His Gly Thr Ile Thr Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

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<213> Mus musculus

<400> 13

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

Gly

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Arg Asn Tyr Phe Tyr Val Met Asp Tyr
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<400> 18

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

<210> 26
<211> 16
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<213> Mus musculus

<400> 26

Arg Ser Ser Lys Ser Leu Leu Arg Thr Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 27
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<212> PRT
<213> Mus musculus

<400> 27

Arg Ser Thr Lys Ser Leu Leu Arg Ser Asn Gly Asn Thr Tyr Leu Tyr
1 5 10 15

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Lys Val Ser Asn Arg Phe Ser
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Trp Ala Ser Thr Arg Glu Ser
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Arg Leu Ser Asn Leu Ala Ser
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Ser Gln Ser Thr His Val Leu Thr
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Met Gln His Leu Glu Tyr Pro Phe Thr
1 5

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Gln Gln Tyr Tyr Ser Tyr Pro Trp Thr
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<213> Mus musculus

<400> 35

Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1 5 10 15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
20 25 30

Pro Val Ala Lys Ala Glu Val Gln Leu Leu Glu Thr Gly Gly Gly Val
35 40 45

Val Lys Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe
50 55 60

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

Arg Leu Glu Trp Val Ala Ala Ile Asn Arg Asp Gly Gly Thr Thr Tyr
85 90 95

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

Lys Asn Ser Leu Tyr Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr
115 120 125

Ala Leu Tyr Tyr Cys Ala Arg Gln Phe Leu Leu Trp Asp Gly Trp Tyr
130 135 140

Phe Asp Val Trp Gly Ala Gly Thr Thr Val Thr Val Ser Ser Ala Lys
145 150 155 160

Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln
165 170 175

```
Thr Asn Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro
            180                 185                 190

Glu Pro Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val
        195                 200                 205

His Thr Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser
    210                 215                 220

Ser Val Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys
225                 230                 235                 240

Asn Val Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val
                245                 250                 255

Pro Arg Asp Cys
            260
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<210> 36
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<213> Mus musculus

<400> 36

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Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                   10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr
    50                  55                  60

Thr Phe Ser Asp His Ala Ile His Trp Met Ser Gln Arg Pro Gly Gln
65                  70                  75                  80

Gly Leu Lys Trp Ile Gly Tyr Ile Tyr Pro Arg His Gly Thr Thr Asn
                85                  90                  95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ala Arg Met Arg Asn Tyr Phe Tyr Val Met Asp
    130                 135                 140
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Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
                165                 170                 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
            180                 185                 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
        195                 200                 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
    210                 215                 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225                 230                 235                 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
                245                 250                 255

Asp Cys
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<210> 37
<211> 258
<212> PRT
<213> Mus musculus

<400> 37

```
Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                   10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Leu Leu Gln Gln Ser Asp Ala Glu Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr
    50                  55                  60

Thr Phe Thr Asp His Ala Ile His Trp Val Lys Gln Arg Pro Glu Gln
65                  70                  75                  80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Glu His Gly Thr Ile Lys
                85                  90                  95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
```

115 120 125

Ala Val Tyr Phe Cys Ser Arg Leu Thr Asn Tyr Phe Tyr Val Met Glu
130 135 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145 150 155 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
165 170 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
180 185 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
195 200 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
210 215 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225 230 235 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
245 250 255

Asp Cys

<210> 38
<211> 262
<212> PRT
<213> Mus musculus

<400> 38

Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1 5 10 15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
20 25 30

Pro Val Ala Lys Ala Glu Val Gln Leu Gln Gln Ser Val Ala Glu Leu
35 40 45

Val Lys Pro Gly Ala Ser Val Lys Met Ser Cys Lys Val Ser Gly Tyr
50 55 60

Thr Leu Thr Asp His Thr Ile His Trp Met Lys Gln Arg Pro Glu Gln
65 70 75 80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Arg Asp Gly Ile Thr Gly
85 90 95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ala Arg Trp Gly Tyr Ser Tyr Arg Asn Tyr Ala
    130                 135                 140

Tyr Tyr Tyr Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
145                 150                 155                 160

Ala Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala
                165                 170                 175

Ala Gln Thr Asn Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr
            180                 185                 190

Phe Pro Glu Pro Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser
        195                 200                 205

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu
    210                 215                 220

Ser Ser Ser Val Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val
225                 230                 235                 240

Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys
                245                 250                 255

Ile Val Pro Arg Asp Cys
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<210> 39
<211> 258
<212> PRT
<213> Mus musculus

<400> 39

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Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                   10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Asp Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr
    50                  55                  60
```

```
Thr Phe Thr Asp His Ala Ile His Trp Val Lys Gln Arg Pro Glu Gln
65                  70                  75                  80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Glu His Gly Thr Ile Lys
                85                  90                  95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ala Arg Leu Arg Asn Tyr Leu Tyr Ile Met Asp
    130                 135                 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
                165                 170                 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
            180                 185                 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
        195                 200                 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
    210                 215                 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225                 230                 235                 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
                245                 250                 255

Asp Cys
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<210> 40
<211> 258
<212> PRT
<213> Mus musculus

<400> 40

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Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                   10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30
```

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu
35 40 45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr
50 55 60

Thr Phe Thr Asp His Ala Ile His Trp Val Lys Gln Arg Pro Glu Gln
65 70 75 80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Glu His Gly Thr Ile Lys
85 90 95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
115 120 125

Ala Val Tyr Phe Cys Ser Arg Leu Thr Asn Tyr Phe Tyr Val Met Glu
130 135 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145 150 155 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
165 170 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
180 185 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
195 200 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
210 215 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225 230 235 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
245 250 255

Asp Cys

<210> 41
<211> 258
<212> PRT
<213> Mus musculus

<400> 41

Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys

1 5 10 15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
20 25 30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu
35 40 45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr
50 55 60

Thr Phe Thr Asp His Ala Ile His Trp Met Lys Gln Arg Pro Glu Gln
65 70 75 80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Arg Asp Gly Phe Thr Lys
85 90 95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
115 120 125

Thr Val Tyr Phe Cys Ala Arg Met Thr Asn Tyr Phe Tyr Thr Met Asp
130 135 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145 150 155 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
165 170 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
180 185 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
195 200 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
210 215 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225 230 235 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
245 250 255

Asp Cys

<210> 42

<211> 258
<212> PRT
<213> Mus musculus

<400> 42

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Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                  10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Asp Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr
    50                  55                  60

Thr Phe Thr Asp His Ala Ile His Trp Val Lys Gln Arg Pro Glu Gln
65                  70                  75                  80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Glu His Gly Thr Ile Lys
                85                  90                  95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ser Arg Leu Thr Asn Tyr Phe Tyr Val Met Glu
    130                 135                 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
                165                 170                 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
            180                 185                 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
        195                 200                 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
    210                 215                 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225                 230                 235                 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
                245                 250                 255
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Asp Cys

<210> 43
<211> 258
<212> PRT
<213> Mus musculus

<400> 43

```
Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                  10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr
    50                  55                  60

Thr Phe Thr Asp His Ala Ile His Trp Val Lys Gln Arg Pro Glu Gln
65                  70                  75                  80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Glu His Gly Ser Ile Thr
                85                  90                  95

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

Ser Ser Thr Val Tyr Met His Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ala Arg Leu Arg Asn Tyr Leu Tyr Val Met Asp
    130                 135                 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
                165                 170                 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
            180                 185                 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
        195                 200                 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
    210                 215                 220
```

```
Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225                 230                 235                 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
                245                 250                 255

Asp Cys
```

<210> 44
<211> 258
<212> PRT
<213> Mus musculus

<400> 44

```
Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                   10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Glu Ala Glu Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr
    50                  55                  60

Thr Phe Thr Asp His Ala Ile His Trp Met Lys Gln Arg Pro Glu Gln
65                  70                  75                  80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Arg Asp Asp Phe Ala Lys
                85                  90                  95

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

Ser Ser Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ala Arg Met Thr Asn Tyr Leu Tyr Ile Met Asp
    130                 135                 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
                165                 170                 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
            180                 185                 190
```

```
Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
        195                 200                 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
    210                 215                 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225                 230                 235                 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
                245                 250                 255

Asp Cys
```

<210> 45
<211> 258
<212> PRT
<213> Mus musculus

<400> 45

```
Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1               5                   10                  15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
            20                  25                  30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Glu Leu
        35                  40                  45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr
    50                  55                  60

Thr Phe Thr Asp His Ala Ile His Trp Val Lys Gln Arg Pro Glu Gln
65                  70                  75                  80

Gly Leu Glu Trp Ile Gly Tyr Ile Tyr Pro Glu His Gly Thr Ile Thr
                85                  90                  95

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

Ser Ser Thr Val Tyr Met His Leu Asn Ser Leu Thr Ser Glu Asp Ser
        115                 120                 125

Ala Val Tyr Phe Cys Ala Arg Leu Arg Asn Tyr Leu Tyr Ile Met Asp
    130                 135                 140

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
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165 170 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
180 185 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
195 200 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
210 215 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225 230 235 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
245 250 255

Asp Cys

<210> 46
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<212> PRT
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<400> 46

Leu Gly Lys Pro Trp Arg Tyr Pro Arg Phe Val His Gly Glu Asn Lys
1 5 10 15

Val Lys Gln Ser Thr Ile Ala Leu Ala Leu Leu Pro Leu Leu Phe Thr
20 25 30

Pro Val Ala Lys Ala Gln Val Gln Leu Gln Gln Ser Asp Ala Ala Leu
35 40 45

Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr
50 55 60

Thr Phe Ser Asp His Ala Ile His Trp Met Lys Gln Arg Pro Glu Gln
65 70 75 80

Gly Leu Glu Trp Ile Gly Tyr Ile Phe Pro Arg Asp Ala Phe Ser Leu
85 90 95

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

Ser Ser Thr Ala Tyr Met Glu Leu Thr Ser Leu Thr Phe Glu Asp Ser
115 120 125

Ala Val Tyr Phe Cys Ala Arg Met Arg Asn Tyr Phe Tyr Val Met Asp
130 135 140

```
Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Ala Lys Thr Thr
145                 150                 155                 160

Pro Pro Ser Val Tyr Thr Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn
                165                 170                 175

Ser Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro
            180                 185                 190

Val Thr Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr
        195                 200                 205

Phe Pro Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val
    210                 215                 220

Thr Val Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val
225                 230                 235                 240

Ala His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg
                245                 250                 255

Asp Cys
```

<210> 47
<211> 275
<212> PRT
<213> Mus musculus

<400> 47

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                   10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Val Val Leu Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Leu Gly Asp
    50                  55                  60

Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu His Trp Tyr Leu Leu Lys Pro Gly Gln Ser Pro
                85                  90                  95

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

```
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Thr
        115                 120                 125

Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser Thr
    130                 135                 140

His Val Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala
145                 150                 155                 160

Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu
                165                 170                 175

Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro
            180                 185                 190

Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn
        195                 200                 205

Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr
    210                 215                 220

Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His
225                 230                 235                 240

Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile
                245                 250                 255

Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro Asp
            260                 265                 270

Tyr Ala Ser
        275
```

<210> 48
<211> 276
<212> PRT
<213> Mus musculus

<400> 48

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                   10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60
```

```
Ser Val Ser Ile Ser Cys Thr Ser Ser Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
            100                 105                 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275
```

<210> 49
<211> 277
<212> PRT
<213> Mus musculus

<400> 49

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                   10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
```

```
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Ser Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly Glu
    50                  55                  60

Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser Ser
65                  70                  75                  80

Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser
                85                  90                  95

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

Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
        115                 120                 125

Thr Ser Val Lys Ser Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln Tyr
    130                 135                 140

Tyr Ser Tyr Pro Trp Thr Phe Gly Gly Gly Thr Arg Leu Glu Ile Lys
145                 150                 155                 160

Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu
                165                 170                 175

Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe
            180                 185                 190

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

Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser
    210                 215                 220

Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu
225                 230                 235                 240

Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser
                245                 250                 255

Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val
            260                 265                 270

Pro Asp Tyr Ala Ser
        275
```

<210> 50

<211> 276
<212> PRT
<213> Mus musculus

<400> 50

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                  10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

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

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255
```

```
Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275
```

<210> 51
<211> 276
<212> PRT
<213> Mus musculus

<400> 51

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                  10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Ile Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Thr Ser Ser Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
            100                 105                 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Leu Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205
```

```
Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275
```

<210> 52
<211> 276
<212> PRT
<213> Mus musculus

<400> 52

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                   10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Arg Thr Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu His Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
            100                 105                 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Val Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160
```

```
Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275


<210>  53
<211>  276
<212>  PRT
<213>  Mus musculus

<400>  53

Arg Ile Leu Pro Tyr Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                   10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

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

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
```

115 120 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
130 135 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145 150 155 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
165 170 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
180 185 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
195 200 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
210 215 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225 230 235 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
245 250 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
260 265 270

Asp Tyr Ala Ser
275

<210> 54
<211> 276
<212> PRT
<213> Mus musculus

<400> 54

Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1 5 10 15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
20 25 30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
35 40 45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
50 55 60

Ser Val Ser Ile Ser Cys Thr Ser Ser Lys Ser Leu Leu Arg Ser Asn
65 70 75 80

```
Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
            100                 105                 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Ser Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275


<210>  55
<211>  276
<212>  PRT
<213>  Mus musculus

<400>  55

Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                   10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30
```

```
Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
            100                 105                 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275
```

<210> 56
<211> 276
<212> PRT

<213> Mus musculus

<400> 56

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                  10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Ser Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Arg Ser Thr Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
            100                 105                 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
                165                 170                 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
    210                 215                 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225                 230                 235                 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
                245                 250                 255
```

```
Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
            260                 265                 270

Asp Tyr Ala Ser
        275
```

<210> 57
<211> 276
<212> PRT
<213> Mus musculus

<400> 57

```
Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1               5                  10                  15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
            20                  25                  30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
        35                  40                  45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
    50                  55                  60

Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Arg Ser Asn
65                  70                  75                  80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
                85                  90                  95

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

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
        115                 120                 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
    130                 135                 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Arg
145                 150                 155                 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Gln Tyr Ser Glu Gln
                165                 170                 175

Leu Thr Thr Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
            180                 185                 190

Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
        195                 200                 205

Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
```

210 215 220

Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
225 230 235 240

His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
245 250 255

Ile Val Lys Ser Phe Asn Arg Asn Glu Ser Tyr Pro Tyr Asp Val Pro
260 265 270

Asp Tyr Ala Ser
275

<210> 58
<211> 199
<212> PRT
<213> Mus musculus

<400> 58

Arg Ile Leu Pro Asp Ala Phe Tyr Arg Asn Ser Leu Leu Phe Leu His
1 5 10 15

Thr Arg Phe Phe Gly Trp Ser Glu Thr Met Lys Tyr Leu Leu Pro Thr
20 25 30

Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Asp
35 40 45

Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly Glu
50 55 60

Ser Val Ser Ile Ser Cys Thr Ser Ser Lys Ser Leu Leu Arg Ser Asn
65 70 75 80

Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro
85 90 95

Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp
100 105 110

Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser
115 120 125

Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Leu
130 135 140

Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Asn Leu Glu Ile Lys Arg
145 150 155 160

Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Thr Thr Ser Arg Glu Gln
165 170 175

Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
180 185 190

Pro Lys Asp Ile Asn Val Lys
195

<210> 59
<211> 783
<212> DNA
<213> Mus musculus

<400> 59
tgactgggaa aaccctggcg ttacccacgc tttgtacatg gagaaaataa agtgaaacaa 60

agcactattg cactggcact cttaccgctc ttatttaccc ctgtggcaaa agccgaagtg 120

cagctgttgg agactggggg aggcgtagtg aagcccggag ggtcccttaa actctcctgt 180

gcagcctctg gattcacttt cagtaactat ggcatgtctt gggttcgcca gactccggag 240

aagaggctgg agtgggtcgc agccattaat cgtgatggtg gtaccaccta ctatacagac 300

aatgtgaagg gccgattcac catctccaga gacaatgcca agaacagcct gtacctgcaa 360

atgagcagtc tgaggtctga ggacacagcc ttgtattact gtgcaagaca gttccttctc 420

tgggacggct ggtacttcga tgtctggggc gcagggacca cggtcaccgt ctcctcagcc 480

aaaacgacac ccccatctgt ctatccactg gcccctggat ctgctgccca aactaactcc 540

atggtgaccc tgggatgcct ggtcaagggc tatttccctg agccagtgac agtgacctgg 600

aactctggat ccctgtccag cggtgtgcac accttcccag ctgtcctgca gtctgacctc 660

tacactctga gcagctcagt gactgtcccc tccagcacct ggcccagcga gaccgtcacc 720

tgcaacgttg cccacccggc cagcagcacc aaggtggaca agaaaattgt gcccagggat 780

tgt 783

<210> 60
<211> 777
<212> DNA
<213> Mus musculus

<400> 60
tgactgggaa aaccctggcg ttacccacgc tttgtacatg gagaaaataa agtgaaacaa 60

agcactattg cactggcact cttaccgctc ttatttaccc ctgtggcaaa agcccaggtt 120

cagctgcaac agtctgacgc tgagttggtg aaacctggag cttcagtgaa gatatcctgc 180

aaggtttctg gctacacctt cagtgaccat gctattcact ggatgagtca gagacctgga 240

cagggcctga aatggattgg atatatttat cctagacatg ggactactaa ctacaatgag 300

aacttcaagg gcaaggccac actgactgca gacacatcct ccagcacagc ctacatgcag 360

ctcaacagcc tgacatctga agattctgcc gtctatttct gtgcaagaat gagaaactac 420

ttctatgtta tggactactg gggtcaagga acctcagtca ccgtctcctc agccaaaacg 480

acacccccat ctgtctatcc actggccccc ggatctgctg cccaaactaa ctccatggtg 540

accctgggat gcctggtcaa gggctatttc cctgagccag tgacagtgac ctggaactct 600

ggatccctgt ccagcggtgt gcacaccttc ccagctgtcc tgcagtctga cctctacact 660

ctgagcagct cagtgactgt cccctccagc acctggccca gcgagaccgt cacctgcaac 720

gttgcccacc cggccagcag caccaaggtg gacaagaaaa ttgtgcccag ggattgt 777

<210> 61
<211> 777
<212> DNA
<213> Mus musculus

<400> 61
tgactgggaa aaccctggcg ttacccacgc tttgtacatg gagaaaataa agtgaaacaa 60

agcactattg cactggcact cttaccgctc ttatttaccc ctgtggcaaa agcccaggtt 120

ctgctgcaac agtctgacgc tgagttggtg aaacctgggg cttcagtgaa gatatcctgc 180

aaggcttctg gctacacctt cactgaccat gctattcact gggtgaagca gaggcctgaa 240

cagggcctgg aatggattgg atatatttat cctgaacatg gaactattaa gtataatgag 300

aagttcaagg gcaaggccac attgactgca gataaatcct ccagcactgc ctatatgcag 360

ctcaacagcc tgacatctga ggattcagca gtgtatttct gttcaagact cactaactac 420

ttctatgtta tggagtattg gggtcaagga acctcagtca ccgtctcctc agccaaaacg 480

acacccccat ctgtctatcc actggccct ggatctgctg cccaaactaa ctccatggtg 540

accctgggat gcctggtcaa gggctatttc cctgagccag tgacagtgac ctggaactct 600

ggatccctgt ccagcggtgt gcacaccttc ccagctgtcc tgcagtctga cctctacact 660

ctgagcagct cagtgactgt cccctccagc acctggccca gcgagaccgt cacctgcaac 720

gttgcccacc cggccagcag caccaaggtg gacaagaaaa ttgtgcccag ggattgt 777

<210> 62
<211> 789
<212> DNA
<213> Mus musculus

<400> 62
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<400> 69
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gtcaagtgga agattgatgg cagtgaacga caaaatggcg tcctgaacag ttggactgat 660

caggacagca aagacagcac ctacagcatg agcagcaccc tcacgttgac caaggacgag 720

tatgaacgac ataacagcta tacctgtgag gccactcaca agacatcaac ttcacccatt 780

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cgtagtaatg gcaacactta cttgtattgg ttcctgcaga ggccaggcca gtctcctcag 300

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gtcaagtgga agattgatgg cagtgaacga caaaatggcg tcctgaacag ttggactgat 660

caggacagca aagacagcac ctacagcatg agcagcaccc tcacgttgac caaggacgag 720

tatgaacgac ataacagcta tacctgtgag gccactcaca agacatcaac ttcacccatt 780

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ataaaacggg ctgatgctgc accaactgta tccatcttcc caccatccag tgagcagtta 540

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tatgaacgac ataacagcta tacctgtgag gccactcaca agacatcaac ttcacccatt 780

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cgtagtaatg gcaacactta cttgtattgg ttcctgcaga ggccaggcca gtctcctcag 300

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gggtcaggaa ctgccttcac actgagaatc agtagagtgg aggctgagga tgtgggtgtt 420

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ataaaacggg ctgatgctgc accaactgta tccatcttcc caccatccag tgagcagtta 540

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caggacagca aagacagcac ctacagcatg agcagcaccc tcacgttgac caaggacgag 720

tatgaacgac ataacagcta tacctgtgag gccactcaca agacatcaac ttcacccatt 780

gtcaagagct tcaacaggaa tgagtcttat ccatatgatg tgccagatta tgcgagctaa 840

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gtacctgtca ctcctggaga gtcagtatcc atctcctgca ggtctagtaa gagtctcctg 240

cgcagtaatg gcaacactta cttgtattgg ttcctgcaga ggccaggcca gtctcctcag 300

ctcctgatat atcggctgtc caaccttgcc tcaggagtcc cagacaggtt cagtggcagt 360

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acaactggag gtgcctcagt cgtgtgcttc ttgaacaact tctaccccaa agacatcaat 600

gtcaagtgga agattgatgg cagtgaacga caaaatggcg tcctgaacag ttggactgat 660

caggacagca aagacagcac ctacagcatg agcagcaccc tcacgttgac caaggacgag 720

tatgaacgac ataacagcta tacctgtgag gccactcaca agacatcaac ttcacccatt 780

gtcaagagct tcaacaggaa tgagtcttat ccatatgatg tgccagatta tgcgagctaa 840

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gctgcccaac cagccatggc cgatattgtg atgacccagg ctgcaccctc tgtacctgtc 180

actcctggag agtcagtatc catctcctgc acgtctagta agagtctcct gcgtagtaat 240

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atgcaacatc tagaatatcc tttcacgttc ggctcgggga caaatttgga aataaaacgg 480

gctgatgctg caccaactgt atccatcttc acaacatcca gagagcagtt aacatctgga 540

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<210> 136
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<212> PRT
<213> Homo sapiens

<400> 136

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

Val Ile Glu Arg Glu Gly Leu Leu Tyr Tyr Asn Arg Ala Leu Asp Arg
50 55 60

Glu Thr Arg Ser Thr His Asn Leu Gln Val Ala Ala Leu Asp Ala Asn
65 70 75 80

Gly Ile Ile Val Glu Gly Pro Val Pro Ile Thr Ile Lys Val Lys Asp
85 90 95

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

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Val Arg Gln Asn Ser Arg Pro Gly Lys Pro Phe Leu Tyr Val Asn Ala
        115                 120                 125

Thr Asp Leu Asp Asp Pro Ala Thr Pro Asn Gly Gln Leu Tyr Tyr Gln
    130                 135                 140

Ile Val Ile Gln Leu Pro Met Ile Asn Asn Val Met Tyr Phe Gln Ile
145                 150                 155                 160

Asn Asn Lys Thr Gly Ala Ile Ser Leu Thr Arg Glu Gly Ser Gln Glu
                165                 170                 175

Leu Asn Pro Ala Lys Asn Pro Ser Tyr Asn Leu Val Ile Ser Val Lys
            180                 185                 190

Asp Met Gly Gly Gln Ser Glu Asn Ser Phe Ser Asp Thr Thr Ser Val
        195                 200                 205

Asp Ile Ile Val Thr Glu Asn Ile Trp Lys Ala Pro Lys Pro
    210                 215                 220
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<210> 137
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<212> PRT
<213> Homo sapiens

<400> 137

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            20                  25                  30

Pro Pro Ala Val Thr Phe Glu Leu Thr Gly Glu Thr Asp Asn Ile Phe
        35                  40                  45

Val Ile Glu Arg Glu Gly Leu Leu Tyr Tyr Asn Arg Ala Leu Asp Arg
    50                  55                  60

Glu Thr Arg Ser Thr His Asn Leu Gln Val Ala Ala Leu Asp Ala Asn
65                  70                  75                  80

Gly Ile Ile Val Glu Gly Pro Val Pro Ile Thr Ile Lys Val Lys Asp
                85                  90                  95

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

Val Arg Gln Asn Ser Arg Pro Gly Lys Pro Phe Leu Tyr Val Asn Ala
        115                 120                 125
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Thr Asp Leu Asp Asp Pro Ala Thr Pro Asn Gly Gln Leu Tyr Tyr Gln
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Ile Val Ile Gln Leu Pro Met Ile Asn Asn Val Met Tyr Phe Gln Ile
145                 150                 155                 160

Asn Asn Lys Thr Gly Ala Ile Ser Leu Thr Arg Glu Gly Ser Gln Glu
                165                 170                 175

Leu Asn Pro Ala Lys Asn Pro Ser Tyr Asn Leu Val Ile Ser Val Lys
            180                 185                 190

Asp Met Gly Gly Gln Ser Glu Asn Ser Phe Ser Asp Thr Thr Ser Val
        195                 200                 205

Asp Ile Ile Val Thr Glu Asn Ile Trp Lys Ala Pro Lys Pro Val Glu
    210                 215                 220

Met Val Glu Asn Ser Thr Asp Pro His Pro Ile Lys Ile Thr Gln Val
225                 230                 235                 240

Arg Trp Asn Asp Pro Gly Ala Gln Tyr Ser Leu Val Asp Lys Glu Lys
                245                 250                 255

Leu Pro Arg Phe Pro Phe Ser Ile Asp Gln Glu Gly Asp Ile Tyr Val
            260                 265                 270

Thr Gln Pro Leu Asp Arg Glu Glu Lys Asp Ala Tyr Val Phe Tyr Ala
        275                 280                 285

Val Ala Lys Asp Glu Tyr Gly Lys Pro Leu Ser Tyr Pro Leu Glu Ile
    290                 295                 300

His Val Lys Val Lys Asp Ile Asn Asp Asn Pro Pro Thr Cys Pro Ser
305                 310                 315                 320

Pro Val Thr Val Phe Glu Val Gln Glu Asn Glu Arg Leu Gly Asn Ser
                325                 330                 335

Ile Gly Thr Leu Thr Ala His Asp Arg Asp Glu Glu Asn Thr Ala Asn
            340                 345                 350

Ser Phe Leu Asn Tyr Arg Ile Val Glu Gln Thr Pro Lys Leu Pro Met
        355                 360                 365

Asp Gly Leu Phe Leu Ile Gln Thr Tyr Ala Gly Met Leu Gln Leu Ala
    370                 375                 380

Lys Gln Ser Leu Lys Lys Gln Asp Thr Pro Gln Tyr Asn Leu Thr Ile
385                 390                 395                 400
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Glu Val Ser Asp Lys Asp Phe Lys Thr Leu Cys Phe Val Gln Ile Asn
405 410 415

Val Ile Asp Ile Asn Asp Gln Ile Pro Ile Phe Glu Lys Ser Asp Tyr
420 425 430

Gly Asn Leu Thr Leu Ala Glu Asp Thr Asn Ile Gly Ser Thr Ile Leu
435 440 445

Thr Ile Gln Ala Thr Asp Ala Asp Glu Pro Phe Thr Gly Ser Ser Lys
450 455 460

Ile Leu Tyr His Ile Ile Lys Gly Asp Ser Glu Gly Arg Leu Gly Val
465 470 475 480

Asp Thr Asp Pro His Thr Asn Thr Gly Tyr Val Ile Ile Lys Lys Pro
485 490 495

Leu Asp Phe Glu Thr Ala Ala Val Ser Asn Ile Val Phe Lys Ala Glu
500 505 510

Asn Pro Glu Pro Leu Val Phe Gly Val Lys Tyr Asn Ala Ser Ser Phe
515 520 525

Ala Lys Phe Thr Leu Ile Val Thr Asp Val Asn Glu Ala Pro Gln Phe
530 535 540

Ser Gln His Val Phe Gln Ala Lys Val Ser Glu Asp Val Ala Ile Gly
545 550 555 560

Thr Lys Val Gly Asn Val Thr Ala Lys Asp Pro Glu Gly Leu Asp Ile
565 570 575

Ser Tyr Ser Leu Arg Gly Asp Thr Arg Gly Trp Leu Lys Ile Asp His
580 585 590

Val Thr Gly Glu Ile Phe Ser Val Ala Pro Leu Asp Arg Glu Ala Gly
595 600 605

Ser Pro Tyr Arg Val Gln Val Val Ala Thr Glu Val Gly Gly Ser Ser
610 615 620

Leu Ser Ser Val Ser Glu Phe His Leu Ile Leu Met Asp Val Asn Asp
625 630 635 640

Asn Pro Pro Arg Leu Ala Lys Asp Tyr Thr Gly Leu Phe Phe Cys His
645 650 655

Pro Leu Ser Ala Pro Gly Ser Leu Ile Phe Glu Ala Thr Asp Asp Asp
660 665 670

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Gln His Leu Phe Arg Gly Pro His Phe Thr Phe Ser Leu Gly Ser Gly
        675                 680                 685

Ser Leu Gln Asn Asp Trp Glu Val Ser Lys Ile Asn Gly Thr His Ala
    690                 695                 700

Arg Leu Ser Thr Arg His Thr Asp Phe Glu Glu Arg Glu Tyr Val Val
705                 710                 715                 720

Leu Ile Arg Ile Asn Asp Gly Gly Arg Pro Pro Leu Glu Gly Ile Val
                725                 730                 735

Ser Leu Pro Val Thr Phe Cys Ser Cys Val Glu Gly Ser Cys Phe Arg
            740                 745                 750

Pro Ala Gly His Gln Thr Gly Ile Pro Thr Val Gly Met
        755                 760                 765
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