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<141> 2011-12-07

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Ser Tyr Ala Met Ser
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Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe Gln
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Gly

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Arg Gly Gly Ser Tyr Phe Asp Tyr
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Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Phe
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Arg Asn His Gln Arg Pro Ser
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Ala Val Trp Asp Ala Lys Tyr Arg Gly Trp Val
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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

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

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Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
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<400> 9

Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu

1 5 10 15

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

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

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<400> 11

Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu Glu Glu Gly Glu Phe
1 5 10 15

Ser Glu Ala Arg Val
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<400> 12

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

Ser Val Thr Ile Ser Cys
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<210> 13
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<400> 13

Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 14
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<213> Homo sapiens

<400> 14

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

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

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<213> Homo sapiens

<400> 15

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
1 5 10

<210> 16
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<212> PRT
<213> Homo sapiens

<400> 16

Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu
1 5 10 15

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

<210> 17
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<213> Homo sapiens

<400> 17

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Ser
1 5 10

<210> 18
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<213> Homo sapiens

<400> 18

Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu
1 5 10 15

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

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
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Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser
20 25 30

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<400> 20

Arg Arg Gly Ala Lys Phe Asp Tyr
1 5

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<400> 21

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

Ser Val Thr Ile Ser Cys
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<210> 22
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<400> 22

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Val
1 5 10

<210> 23
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<400> 23

Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser

1 5 10 15

Leu Ala Ile Gly Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys
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<210> 24
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<400> 24

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

<210> 25
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<213> Homo sapiens

<400> 25

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

Ser Val Thr Ile Ser Cys
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<400> 26

Ser Tyr Ala Ile Ser
1 5

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Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 28
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<213> Homo sapiens

<400> 28

Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu
1 5 10 15

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

<210> 29
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<212> PRT
<213> Homo sapiens

<400> 29

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 30
<211> 110
<212> PRT
<213> Homo sapiens

<400> 30

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
85 90 95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 31
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<400> 31

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 32
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<400> 32

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
85 90 95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 33
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<400> 33

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 34
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<213> Homo sapiens

<400> 34

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
85 90 95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 35
<211> 117
<212> PRT
<213> Homo sapiens

<400> 35

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60

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

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

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

Val Thr Val Ser Ser
        115
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<210> 36
<211> 110
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<400> 36

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
            20                  25                  30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
    50                  55                  60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
                85                  90                  95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
            100                 105                 110
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<210> 37
<211> 117

<212> PRT
<213> Homo sapiens

<400> 37

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 38
<211> 110
<212> PRT
<213> Homo sapiens

<400> 38

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

<210> 39
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<212> PRT
<213> Homo sapiens

<400> 39

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 40
<211> 110
<212> PRT
<213> Homo sapiens

<400> 40

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

<210> 41
<211> 117
<212> PRT
<213> Homo sapiens

<400> 41

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 42

<211> 109
<212> PRT
<213> Homo sapiens

<400> 42

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

Ser Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
100 105

<210> 43
<211> 117
<212> PRT
<213> Homo sapiens

<400> 43

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

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

Val Thr Val Ser Ser
115

<210> 44
<211> 110
<212> PRT
<213> Homo sapiens

<400> 44

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

<210> 45
<211> 117
<212> PRT
<213> Homo sapiens

<400> 45

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

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

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

35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 46
<211> 110
<212> PRT
<213> Homo sapiens

<400> 46

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

<210> 47
<211> 248
<212> PRT
<213> Homo sapiens

<400> 47

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
        115                 120                 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145                 150                 155                 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Phe Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr Arg Gly Trp Val Phe Gly
225                 230                 235                 240
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Gly Gly Thr Lys Leu Thr Val Leu
245

<210> 48
<211> 248
<212> PRT
<213> Homo sapiens

<400> 48

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
115 120 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145 150 155 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Ser Trp Tyr Gln
165 170 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
180 185 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
195 200 205

```
Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr Arg Gly Trp Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Lys Leu Thr Val Leu
                245
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<210> 49
<211> 248
<212> PRT
<213> Homo sapiens

<400> 49

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
        115                 120                 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145                 150                 155                 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Phe Trp Tyr Gln
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165 170 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
180 185 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
195 200 205

Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr Arg Gly Trp Val Phe Gly
225 230 235 240

Gly Gly Thr Lys Leu Thr Val Leu
245

<210> 50
<211> 248
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<213> Homo sapiens

<400> 50

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
115 120 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145 150 155 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Ser Trp Tyr Gln
165 170 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
180 185 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
195 200 205

Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr Arg Gly Trp Val Phe Gly
225 230 235 240

Gly Gly Thr Lys Leu Thr Val Leu
245

<210> 51
<211> 248
<212> PRT
<213> Homo sapiens

<400> 51

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

```
Ala Arg Arg Arg Gly Ala Lys Phe Asp Tyr Trp Gly Gln Gly Thr Leu
            100                 105                 110

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
        115                 120                 125

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

Gln Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145                 150                 155                 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Val Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Gly Gly Leu Arg Ser Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu Ser Gly Trp Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Lys Leu Thr Val Leu
                245
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<210> 52
<211> 248
<212> PRT
<213> Homo sapiens

<400> 52

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
            20                  25                  30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60
```

```
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
        115                 120                 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145                 150                 155                 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Val Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Gly Gly Leu Arg Ser Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu Ser Gly Trp Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Lys Leu Thr Val Leu
                245
```

<210> 53
<211> 247
<212> PRT
<213> Homo sapiens

<400> 53

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
115 120 125

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

Gln Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145 150 155 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Val Trp Tyr Gln
165 170 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
180 185 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
195 200 205

Ser Ala Ser Leu Ala Ile Gly Gly Leu Arg Ser Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu Ser Gly Trp Val Phe Gly
225 230 235 240

Gly Gly Thr Lys Leu Thr Val
245

<210> 54
<211> 248
<212> PRT

<213> Homo sapiens

<400> 54

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
        115                 120                 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145                 150                 155                 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Val Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Gly Gly Leu Arg Ser Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu Ser Gly Trp Val Phe Gly
225                 230                 235                 240
```

Gly Gly Thr Lys Leu Thr Val Leu
245

<210> 55
<211> 248
<212> PRT
<213> Homo sapiens

<400> 55

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Lys Leu Ser Gly Ser Ala Ser Ala Pro Lys Leu
115 120 125

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

Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln Ser Val Thr Ile Ser Cys
145 150 155 160

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Val Trp Tyr Gln
165 170 175

Gln Leu Pro Gly Thr Ala Pro Arg Leu Leu Ile Tyr Arg Asn His Gln
180 185 190

Arg Pro Ser Gly Val Pro Asp Arg Leu Ser Gly Ser Lys Ser Gly Thr

195 200 205

Ser Ala Ser Leu Ala Ile Gly Gly Leu Arg Ser Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu Ser Gly Trp Val Phe Gly
225 230 235 240

Gly Gly Thr Lys Leu Thr Val Leu
245

<210> 56
<211> 744
<212> DNA
<213> Homo sapiens

<400> 56
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tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc aaagctttca 360

gggagtgcat ccgccccaaa acttgaagaa ggtgaatttt cagaagcacg cgtatcctat 420

gtgctgactc agccaccctc agcgtctggg acccccgggc agagcgtcac catctcttgt 480

tctggaagca cctccaacat cggaagtcat tatgtgttct ggtaccagca gctcccagga 540

acggccccca gactcctcat ctataggaat catcagcggc cctcaggggt ccctgaccga 600

ctctctggct ccaagtctgg cacctcagcc tccctggcca tcagtgggct ccggtccgag 660

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ggagggacca agctgaccgt ccta 744

<210> 57
<211> 744
<212> DNA
<213> Homo sapiens

<400> 57
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cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

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gtgctgactc agccaccctc agcgtctggg acccccgggc agagcgtcac catctcttgt 480

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ctctctggct ccaagtctgg cacctcagcc tccctggcca tcagtgggct ccggtccgag 660

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ggagggacca agctgaccgt ccta 744

<210> 58
<211> 744
<212> DNA
<213> Homo sapiens

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ctctctggct ccaagtctgg cacctcagcc tccctggcca tcagtgggct ccggtccgag 660

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ggagggacca agctgaccgt ccta 744

<210> 59
<211> 744
<212> DNA
<213> Homo sapiens

<400> 59
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tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

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gtgctgactc agccaccctc agcgtctggg acccccgggc agagcgtcac catctcttgt 480

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ggagggacca agctgaccgt ccta 744

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<400> 61

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ggagggacca agctgaccgt ccta 744

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<211> 744
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<213> Homo sapiens

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ggagggacca agctgaccgt ccta 744

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<212> DNA
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ggagggacca agctgaccgt ccta 744

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<211> 1341
<212> DNA
<213> Homo sapiens

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tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

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gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 66
<211> 648
<212> DNA
<213> Homo sapiens

<400> 66
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catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 67
<211> 447
<212> PRT
<213> Homo sapiens

<400> 67

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys

130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
180 185 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
195 200 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
210 215 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
260 265 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 68
<211> 216
<212> PRT
<213> Homo sapiens

<400> 68

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
85 90 95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 69
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 69
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag acctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200

gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 70
<211> 648
<212> DNA
<213> Homo sapiens

<400> 70
tcctatgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcacctc caacatcgga agtcattatg tgtcctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 71
<211> 447
<212> PRT
<213> Homo sapiens

<400> 71

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr

65 70 75 80

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
180 185 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
195 200 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
210 215 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
260 265 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

```
Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
                325                 330                 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
            340                 345                 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
        355                 360                 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
    370                 375                 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385                 390                 395                 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
                405                 410                 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
            420                 425                 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
        435                 440                 445
```

<210> 72
<211> 216
<212> PRT
<213> Homo sapiens

<400> 72

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
            20                  25                  30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
    50                  55                  60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
                85                  90                  95
```

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 73
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 73
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag acctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200

gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 74
<211> 648
<212> DNA
<213> Homo sapiens

<400> 74
tcctatgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcacctc caacatcgga agtcattatg tgttctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 75
<211> 447
<212> PRT
<213> Homo sapiens

<400> 75

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser

```
1               5                   10                  15

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
        115                 120                 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
    130                 135                 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145                 150                 155                 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
                165                 170                 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
            180                 185                 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
    210                 215                 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
                245                 250                 255
```

```
Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
            260                 265                 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
        275                 280                 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
    290                 295                 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305                 310                 315                 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
                325                 330                 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
            340                 345                 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
        355                 360                 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
    370                 375                 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385                 390                 395                 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
                405                 410                 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
            420                 425                 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
        435                 440                 445
```

<210> 76
<211> 216
<212> PRT
<213> Homo sapiens

<400> 76

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
            20                  25                  30
```

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
85 90 95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 77
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 77
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200

gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 78
<211> 648
<212> DNA
<213> Homo sapiens

<400> 78
tcctatgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcacctc caacatcgga agtcattatg tgtcctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 79
<211> 447
<212> PRT
<213> Homo sapiens

<400> 79

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
180 185 190

```
Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
    210                 215                 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
                245                 250                 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
            260                 265                 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
        275                 280                 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
    290                 295                 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305                 310                 315                 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
                325                 330                 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
            340                 345                 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
        355                 360                 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
    370                 375                 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385                 390                 395                 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
                405                 410                 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
            420                 425                 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

435 440 445

<210> 80
<211> 216
<212> PRT
<213> Homo sapiens

<400> 80

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Ala Lys Tyr
85 90 95

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 81
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 81
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200

gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 82
<211> 648
<212> DNA
<213> Homo sapiens

<400> 82
tcctatgtgc tgactcagca accctcagcg tctgggaccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcacctc caacatcgga agtcattatg tggtctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 83
<211> 447
<212> PRT
<213> Homo sapiens

<400> 83

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

```
Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
    130                 135                 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145                 150                 155                 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
                165                 170                 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
            180                 185                 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
    210                 215                 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
                245                 250                 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
            260                 265                 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
        275                 280                 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
    290                 295                 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305                 310                 315                 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
                325                 330                 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
            340                 345                 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
        355                 360                 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
```

370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 84
<211> 216
<212> PRT
<213> Homo sapiens

<400> 84

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 85
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 85
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200

gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 86
<211> 648
<212> DNA
<213> Homo sapiens

<400> 86
tcctatgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcacctc caacatcgga agtcattatg tggtctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 87
<211> 447
<212> PRT
<213> Homo sapiens

<400> 87

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

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

```
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
        115                 120                 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
    130                 135                 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145                 150                 155                 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
                165                 170                 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
            180                 185                 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
    210                 215                 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
                245                 250                 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
            260                 265                 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
        275                 280                 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
    290                 295                 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
```

305 310 315 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 88
<211> 216
<212> PRT
<213> Homo sapiens

<400> 88

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 89
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 89
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

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ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200

gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 90
<211> 648
<212> DNA
<213> Homo sapiens

<400> 90
tcctatgtgc tgactcagca accctcagcg tctgggaccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcacctc caacatcgga agtcattatg tggtctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 91
<211> 447
<212> PRT
<213> Homo sapiens

<400> 91

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
    50                  55                  60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
        115                 120                 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
    130                 135                 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145                 150                 155                 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
                165                 170                 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
            180                 185                 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
    210                 215                 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
```

245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
260 265 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 92
<211> 216
<212> PRT
<213> Homo sapiens

<400> 92

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
20 25 30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
85 90 95

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

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 93
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 93
caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

gccctgggct gcctggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 480

ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

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cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

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aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

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gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

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<210> 94
<211> 648
<212> DNA
<213> Homo sapiens

<400> 94
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ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

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ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

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<210> 95
<211> 447
<212> PRT
<213> Homo sapiens

<400> 95

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser

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                180                 185                 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
    210                 215                 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
                245                 250                 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
            260                 265                 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
        275                 280                 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
    290                 295                 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305                 310                 315                 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
                325                 330                 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
            340                 345                 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
        355                 360                 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
    370                 375                 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385                 390                 395                 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
                405                 410                 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
            420                 425                 430
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His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
        435                 440                 445
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<210> 96
<211> 216
<212> PRT
<213> Homo sapiens

<400> 96

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
            20                  25                  30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
    50                  55                  60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
                85                  90                  95

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

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
        115                 120                 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
    130                 135                 140

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
            180                 185                 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
        195                 200                 205
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Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 97
<211> 1341
<212> DNA
<213> Homo sapiens

<400> 97
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cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agcaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc agcctccacc 360

aagggcccat cggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 420

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ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 540

tccctcagca gcgtggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 600

aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 660

gacaaaactc acacatgccc accgtgccca gcacctgaac tcctgggggg accgtcagtc 720

ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 780

tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac 840

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac 900

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag 960

tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa 1020

gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag 1080

aaccaggtca gcctgacctg cctggtcaaa ggcttctatc ccagcgacat cgccgtggag 1140

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gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg 1260

aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc 1320

ctctccctgt ctccgggtaa a 1341

<210> 98
<211> 648
<212> DNA

<213> Homo sapiens

<400> 98
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ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360

ctgttcccgc cctcctctga ggagcttcaa gccaacaagg ccacactggt gtgtctcata 420

agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtcaag 480

gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540

tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600

catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttca 648

<210> 99
<211> 447
<212> PRT
<213> Homo sapiens

<400> 99

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu

115 120 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
180 185 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
195 200 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His
210 215 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
260 265 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

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Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
    370                 375                 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385                 390                 395                 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
                405                 410                 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
            420                 425                 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
        435                 440                 445
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<210> 100
<211> 216
<212> PRT
<213> Homo sapiens

<400> 100

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

Ser Val Thr Ile Ser Cys Ser Gly Ser Thr Ser Asn Ile Gly Ser His
            20                  25                  30

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

Ile Tyr Arg Asn His Gln Arg Pro Ser Gly Val Pro Asp Arg Leu Ser
    50                  55                  60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Val Trp Asp Asp Thr Leu
                85                  90                  95

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

Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
        115                 120                 125

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

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
            180                 185                 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
        195                 200                 205

Thr Val Ala Pro Thr Glu Cys Ser
    210                 215
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<210> 101
<211> 351
<212> DNA
<213> Homo sapiens

<400> 101
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tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

<210> 102
<211> 330
<212> DNA
<213> Homo sapiens

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tcttgttctg gaagcacctc caacatcgga agtcattatg tgttctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 103
<211> 351

<212> DNA
<213> Homo sapiens

<400> 103
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tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag acctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

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<211> 330
<212> DNA
<213> Homo sapiens

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tcttgttctg gaagcacctc caacatcgga agtcattatg tgtcctggta ccagcagctc 120

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tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 105
<211> 351
<212> DNA
<213> Homo sapiens

<400> 105
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tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

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gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag acctgatgac acggccgtgt attactgtgc gagacgcggt 300

gggagctact ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

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<211> 330
<212> DNA
<213> Homo sapiens

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gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 107
<211> 351
<212> DNA
<213> Homo sapiens

<400> 107
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tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

cctgggcaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaactac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacgcggt 300

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<211> 330
<212> DNA
<213> Homo sapiens

<400> 108
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tcttgttctg gaagcacctc caacatcgga agtcattatg tgtcctggta ccagcagctc 120

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gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg cgaaatacag gggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 109
<211> 351
<212> DNA
<213> Homo sapiens

<400> 109
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tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

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gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

<210> 110
<211> 330
<212> DNA
<213> Homo sapiens

<400> 110
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gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 111
<211> 351
<212> DNA
<213> Homo sapiens

<400> 111
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tcctgcaagg cttctgaagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

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atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

<210> 112
<211> 330
<212> DNA
<213> Homo sapiens

<400> 112
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gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 113
<211> 351
<212> DNA
<213> Homo sapiens

<400> 113
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tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

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gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

<210> 114
<211> 330
<212> DNA
<213> Homo sapiens

<400> 114
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tcttgttctg gaagcacctc caacatcgga agtcattatg tggtctggta ccagcagctc 120

ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

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ttcggcggag ggaccaagct gaccgtccta 330

<210> 115
<211> 351
<212> DNA
<213> Homo sapiens

<400> 115
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tcctgcaagg cttctggagg caccttcagc agctatgcta tgagctgggt gcgacaggcc 120

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gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgatgac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

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<211> 330
<212> DNA

<213> Homo sapiens

<400> 116
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ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

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ttcggcggag gaccaagct gaccgtccta 330

<210> 117
<211> 351
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<400> 117
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tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc 120

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atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagacggcgc 300

ggcgctaaat ttgactactg gggccaaggg accctggtca ccgtctcctc a 351

<210> 118
<211> 330
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<213> Homo sapiens

<400> 118
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ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

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ttcggcggag gaccaagct gaccgtccta 330

<210> 119
<211> 5
<212> PRT
<213> artificial sequence

<220>
<223> consensus sequence

<220>
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<222> (4)..(4)
<223> Xaa can be any naturally occurring amino acid

<400> 119

Ser Tyr Ala Xaa Ser
1 5

<210> 120
<211> 5
<212> PRT
<213> artificial sequence

<220>
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<220>
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<222> (4)..(4)
<223> Xaa can be M or I

<400> 120

Ser Tyr Ala Xaa Ser
1 5

<210> 121
<211> 17
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<220>
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<220>
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<222> (1)..(17)
<223> X= any amino acid

<400> 121

Gly Ile Ile Pro Ile Phe Gly Thr Xaa Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 122
<211> 17
<212> PRT
<213> artificial sequence

<220>

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<220>
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<223> X = V, I or A

<400> 122

Gly Ile Ile Pro Ile Phe Gly Thr Xaa Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 123
<211> 8
<212> PRT
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<220>
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<400> 123

Arg Xaa Gly Xaa Xaa Phe Asp Tyr
1 5

<210> 124
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<223> X=S or A

<220>
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<400> 124

Arg Xaa Gly Xaa Xaa Phe Asp Tyr
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<210> 125
<211> 13
<212> PRT
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<400> 125

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Xaa
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<210> 126
<211> 13
<212> PRT
<213> artificial sequence

<220>
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<220>
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<222> (1)..(13)
<223> X = F, S or Y

<400> 126

Ser Gly Ser Thr Ser Asn Ile Gly Ser His Tyr Val Xaa
1 5 10

<210> 127
<211> 11
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<220>
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<220>
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<400> 127

Ala Val Trp Asp Xaa Xaa Xaa Xaa Gly Trp Val
1 5 10

<210> 128
<211> 11
<212> PRT
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<220>
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<220>
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<220>
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<222> (6)..(6)
<223> X= K or T

<220>
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<222> (7)..(7)
<223> X= Y or L

<220>
<221> VARIANT
<222> (8)..(8)
<223> X= R or S

<400> 128

Ala Val Trp Asp Xaa Xaa Xaa Xaa Gly Trp Val
1 5 10

<210> 129
<211> 22
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<220>
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<220>
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<400> 129

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

Ser Val Thr Ile Ser Cys
20

<210> 130
<211> 22
<212> PRT
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<220>
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<222> (1)..(2)
<223> X at position 1 = Q and/or X at position 2 = S

<400> 130

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

Ser Val Thr Ile Ser Cys
20

<210> 131
<211> 22
<212> PRT
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<220>
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<220>
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<222> (1)..(22)
<223> Each X may be any amino acid

<400> 131

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

Ser Val Thr Ile Ser Cys
20

<210> 132
<211> 22
<212> PRT
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<220>
<223> homologue

<220>
<221> VARIANT
<222> (1)..(2)
<223> X at position 1 = Q and/or X at position 2 = S

<400> 132

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

Ser Val Thr Ile Ser Cys
20

<210> 133
<211> 330
<212> DNA
<213> Homo sapiens

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ccaggaacgg cccccagact cctcatctat aggaatcatc agcggccctc aggggtccct 180

gaccgactct ctggctccaa gtctggcacc tcagcctccc tggccatcgg tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gtgtgggatg acaccctgag tggctgggtg 300

ttcggcggag ggaccaagct gaccgtccta 330