

SEQUENCE LISTING

<110> Novartis AG

<120> COMPOSITIONS AND METHODS OF USE FOR ANTIBODIES AGAINST SCLEROSTIN

<130> 52279

<160> 171

<170> PatentIn version 3.2

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Gly	Phe	Thr	Phe	Ser	Ser	Tyr	Val	Met	Asn
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Gly	Phe	Thr	Phe	Arg	Ser	His	Trp	Leu	Ser
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Gly	Phe	Thr	Phe	Ser	Ser	Tyr	Val	Met	Asn
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Gly	Phe	Thr	Phe	Arg	Ser	His	Trp	Leu	Ser
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Gly Phe Thr Phe Arg Ser His Trp Leu Ser
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Gly Phe Thr Phe Arg Ser His Trp Leu Ser
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Gly Phe Thr Phe Arg Ser His Trp Leu Ser
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Gly Phe Thr Phe Arg Ser His Trp Leu Ser
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Gly Phe Thr Phe Arg Ser His Trp Leu Ser
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<400> 10

Gly Phe Thr Phe Arg Ser His Trp Leu Ser
1 5 10

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<400> 11

Gly Phe Thr Phe Arg Ser His Trp Leu Ser
1 5 10

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<400> 12

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

Ser Val Lys Gly
20

<210> 13
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<213> Homo sapiens

<400> 13

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

Ser Val Lys Gly
20

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<400> 14

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

Ser Val Lys Gly
20

<210> 15
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<400> 15

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

Ser Val Lys Gly
20

<210> 16

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<400> 16

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

Val Lys Gly

<210> 17

<211> 19

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<213> Homo sapiens

<400> 17

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

Val Lys Gly

<210> 18

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<213> Homo sapiens

<400> 18

Trp Val Ser Val Thr Thr His Gln Gly Tyr Thr Tyr Tyr Ala Asp Ser
1 5 10 15

Val Lys Gly

<210> 19

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<400> 19

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

Val Lys Gly

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

Ser Val Lys Gly
20

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

Val Lys Gly

<210> 22
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<400> 22

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

Val Lys Gly

<210> 23
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<400> 23

Thr Phe Met His Gly His Leu Gly Gly Gly Leu Ser Met Asp Phe
1 5 10 15

<210> 24
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<400> 24

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

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Thr Phe Met His Gly His Leu Gly Gly Gly Leu Ser Met Asp Phe
1 5 10 15

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Asp Thr Tyr Leu His Phe Asp Tyr
1 5

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<400> 27

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

<210> 28
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<400> 28

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

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Asp Thr Tyr Leu His Phe Asp Tyr
1 5

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<400> 30

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

<210> 31
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<400> 31

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

<210> 32
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<400> 32

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

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<400> 33

Asp Thr Tyr Leu His Phe Asp Tyr
1 5

<210> 34
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<400> 34

Ser Gly Asp Asn Ile Gly Ser Phe Tyr Val His

1 5 10

<210> 35
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<213> Homo sapiens

<400> 35

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

Ser Val Lys Gly
20

<210> 36
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<213> Homo sapiens

<400> 36

Ser Gly Asp Asn Ile Gly Ser Phe Tyr Val His
1 5 10

<210> 37
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<212> PRT
<213> Homo sapiens

<400> 37

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 38
<211> 14
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<400> 38

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 39
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<400> 39

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 40
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<400> 40

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 41
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<400> 41

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 42
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<400> 42

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 43
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<400> 43

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 44
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<400> 44

Thr Gly Thr Ser Ser Asp Val Gly Asp Ile Asn Asp Val Ser
1 5 10

<210> 45
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<400> 45

Leu Val Ile Tyr Asp Asp Asn Asn Arg Pro Ser
1 5 10

<210> 46

<211> 11

<212> PRT

<213> Homo sapiens

<400> 46

Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser
1 5 10

<210> 47

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Leu Val Ile Tyr Asp Asp Asn Asn Arg Pro Ser
1 5 10

<210> 48

<211> 11

<212> PRT

<213> Homo sapiens

<400> 48

Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser
1 5 10

<210> 49

<211> 11

<212> PRT

<213> Homo sapiens

<400> 49

Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser
1 5 10

<210> 50

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<212> PRT

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<400> 50

Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser
1 5 10

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

<400> 51

Leu	Met	Ile	Tyr	Asp	Val	Asn	Asn	Arg	Pro	Ser
1				5					10	

<210> 52
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<213> Homo sapiens

<400> 52

Leu	Met	Ile	Tyr	Asp	Val	Asn	Asn	Arg	Pro	Ser
1				5					10	

<210> 53
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<213> Homo sapiens

<400> 53

Leu	Met	Ile	Tyr	Asp	Val	Asn	Asn	Arg	Pro	Ser
1				5					10	

<210> 54
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<212> PRT
<213> Homo sapiens

<400> 54

Leu	Met	Ile	Tyr	Asp	Val	Asn	Asn	Arg	Pro	Ser
1				5					10	

<210> 55
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<213> Homo sapiens

<400> 55

Leu	Met	Ile	Tyr	Asp	Val	Asn	Asn	Arg	Pro	Ser
1				5					10	

<210> 56
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<213> Homo sapiens

<400> 56

Gly Ser Trp Ala Gly Ser Ser Gly Ser Tyr
1 5 10

<210> 57
<211> 10
<212> PRT
<213> Homo sapiens

<400> 57

Ser Ser Tyr Gly Glu Ser Leu Thr Ser Tyr
1 5 10

<210> 58
<211> 10
<212> PRT
<213> Homo sapiens

<400> 58

Ala Ser Trp Thr Gly Val Glu Pro Asp Tyr
1 5 10

<210> 59
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<400> 59

Gln Ser Tyr Ala Gly Ser Tyr Leu Ser Glu
1 5 10

<210> 60
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<400> 60

Ser Ser Tyr Gly Glu Ser Leu Thr Ser Tyr
1 5 10

<210> 61
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<400> 61

Ser Ser Tyr Gly Glu Ser Leu Thr Ser Tyr
1 5 10

<210> 62

<211> 10
<212> PRT
<213> Homo sapiens

<400> 62

Ser	Ser	Tyr	Gly	Glu	Ser	Leu	Thr	Ser	Tyr
1				5					10

<210> 63
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<212> PRT
<213> Homo sapiens

<400> 63

Ser	Ser	Tyr	Gly	Glu	Ser	Leu	Thr	Ser	Tyr
1				5					10

<210> 64
<211> 10
<212> PRT
<213> Homo sapiens

<400> 64

Ser	Thr	Tyr	Asp	Gly	Pro	Gly	Leu	Ser	Glu
1				5					10

<210> 65
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<213> Homo sapiens

<400> 65

Ser	Ser	Tyr	Gly	Glu	Ser	Leu	Thr	Ser	Tyr
1				5					10

<210> 66
<211> 10
<212> PRT
<213> Homo sapiens

<400> 66

Ser	Ser	Tyr	Gly	Glu	Ser	Leu	Thr	Ser	Tyr
1				5					10

<210> 67
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<213> Homo sapiens

<400> 67

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

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

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

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

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

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

Ala Arg Thr Phe Met His Gly His Leu Gly Gly Gly Leu Ser Met Asp
100 105 110

Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

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

<400> 68

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 69
<211> 124
<212> PRT
<213> Homo sapiens

<400> 69

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

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

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

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

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

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

Ala Arg Thr Phe Met His Gly His Leu Gly Gly Gly Leu Ser Met Asp
100 105 110

Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 70
<211> 117
<212> PRT
<213> Homo sapiens

<400> 70

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser His

20

25

30

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

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

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

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

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

Val Thr Val Ser Ser
 115

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

<400> 71

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

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

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

Ser Val Thr Gly Val His Gly Asp Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60

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

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

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

Thr Val Ser Ser
115

<210> 72
<211> 116
<212> PRT
<213> Homo sapiens

<400> 72

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

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

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

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

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

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

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

Thr Val Ser Ser
115

<210> 73
<211> 116
<212> PRT
<213> Homo sapiens

<400> 73

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

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

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

Ser Val Thr Thr His Gln Gly Tyr Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60

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

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

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

Thr Val Ser Ser
115

<210> 74
<211> 116
<212> PRT
<213> Homo sapiens

<400> 74

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

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

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

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

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

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

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

Thr Val Ser Ser
115

<210> 75
<211> 117
<212> PRT
<213> Homo sapiens

<400> 75

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 76
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<213> Homo sapiens

<400> 76

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

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

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

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

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

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

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

Thr Val Ser Ser
115

<210> 77
<211> 116
<212> PRT
<213> Homo sapiens

<400> 77

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

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

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

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

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

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

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

Thr Val Ser Ser
115

<210> 78
<211> 110
<212> PRT
<213> Homo sapiens

<400> 78

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

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

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

Asp Asp Asn Asn Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

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

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

<210> 79

<211> 113

<212> PRT

<213> Homo sapiens

<400> 79

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 80
<211> 110
<212> PRT
<213> Homo sapiens

<400> 80

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

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

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

Asp Asp Asn Asn Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

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

Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110

<210> 81
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<213> Homo sapiens

<400> 81

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 82
<211> 113
<212> PRT
<213> Homo sapiens

<400> 82

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 83

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<213> Homo sapiens

<400> 83

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 84
<211> 113
<212> PRT
<213> Homo sapiens

<400> 84

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 85
<211> 113
<212> PRT
<213> Homo sapiens

<400> 85

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 86
<211> 113
<212> PRT
<213> Homo sapiens

<400> 86

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

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

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

Gln

<210> 87
<211> 113
<212> PRT
<213> Homo sapiens

<400> 87

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
20 25 30

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

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

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

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Gly Glu Ser

85

90

95

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

Gln

<210> 88
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 88

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Asp Ile
 20 25 30

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

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

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

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

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

Gln

<210> 89
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 89

cagggtgcaat tgggtggaaag cggcgggcggc ctggtgcaac cgggcggcag cctgcgtctg 60

agctgcgcgg cctccggatt taccttttct tcttatgtta tgaattgggt ggcgccaagcc 120

cctgggaagg gtctcgagtg ggtgagcttt atctctggtg attctagcaa tacctattat 180

gcggatagcg tgaaaggccg ttttaccatt tcacgtgata attcgaaaaa caccctgtat	240
ctgcaaatac acagcctgcg tgcggaagat acggccgtgt attattgcgc gcgtactttt	300
atgcatggtc atcttggtgg tggctcttct atggatTTTT ggggccaaagg caccctggtg	360
acggttagct ca	372

<210> 90
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 90	
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agctgcgcgg cctccggatt tacctttcgt tctcattggc tttcttgggt gcgccaaagc	120
cctgggaagg gtctcgagt ggtgagcaat atcaattatg atggtagctc tacctattat	180
gcggatagcg tgaaaggccg ttttaccatt tcacgtgata attcgaaaaa caccctgtat	240
ctgcaaatac acagcctgcg tgcggaagat acggccgtgt attattgcgc gcgtgatact	300
tatcttcatt ttgattattg gggccaaggc accctggtga cggtagctc a	351

<210> 91
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 91	
caggtgcaat tggatgaaag cggcgccggc ctggtgcaac cgggcggcag cctgcgtctg	60
agctgcgcgg cctccggatt taccttttct tcttatgtta tgaattgggt gcgccaaagc	120
cctgggaagg gtctcgagt ggtgagcttt atctctggtg attctagcaa tacctattat	180
gcggatagcg tgaaaggccg ttttaccatt tcacgtgata attcgaaaaa caccctgtat	240
ctgcaaatac acagcctgcg tgcggaagat acggccgtgt attattgcgc gcgtactttt	300
atgcatggtc atcttggtgg tggctcttct atggatTTTT ggggccaaagg caccctggtg	360
acggttagct ca	372

<210> 92
 <211> 351
 <212> DNA
 <213> Homo sapiens

<400> 92	
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agctgcgcgg cctccggatt tacctttcgt tctcattggc tttcttgggt gcgccaaagc	120
cctgggaagg gtctcgagt ggtgagcaat atcaattatg atggtagctc tacctattat	180

gcggatagcg tgaaaggccg ttttaccatt tcacgtgata attcgaaaaa caccctgtat	240
ctgcaaatac acagcctgcg tgcggaagat acggccgtgt attattgcgc gcgtgatact	300
tatcttcatt ttgattattg gggccaaggc accctggtga cggttagctc a	351

<210> 93
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 93	
caggtgcaat tgggtgaaag cggcggcggc ctggtgcaac cgggcggcag cctgcgtctg	60
agctgcgcgg cctccggatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc	120
cctgggaagg gtctcgagtg ggtgagcgtt actggtgttc atggtgatac ttattatgct	180
gattctgtta agggtcgttt taccatttca cgtgataatt cgaaaaacac cctgtatctg	240
caaatgaaca gcctgcgtgc ggaagatacg gccgtgtatt attgcgcgcg tgatacttat	300
cttcattttg attattgggg ccaaggcacc ctggtgacgg ttagctca	348

<210> 94
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 94	
caggtgcaat tgggtgaaag cggcggcggc ctggtgcaac cgggcggcag cctgcgtctg	60
agctgcgcgg cctccggatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc	120
cctgggaagg gtctcgagtg ggtgagcgtt attggttaatt ggggtgatac ttattatgct	180
gattctgtta agggtcgttt taccatttca cgtgataatt cgaaaaacac cctgtatctg	240
caaatgaaca gcctgcgtgc ggaagatacg gccgtgtatt attgcgcgcg tgatacttat	300
cttcattttg attattgggg ccaaggcacc ctggtgacgg ttagctca	348

<210> 95
 <211> 348
 <212> DNA
 <213> Homo sapiens

<400> 95	
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agctgcgcgg cctccggatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc	120
cctgggaagg gtctcgagtg ggtgagcgtt actactcatc agggttatac ttattatgct	180
gattctgtta agggtcgttt taccatttca cgtgataatt cgaaaaacac cctgtatctg	240
caaatgaaca gcctgcgtgc ggaagatacg gccgtgtatt attgcgcgcg tgatacttat	300

cttcattttg attattgggg ccaaggcacc ctggtgacgg ttagctca 348

<210> 96
<211> 348
<212> DNA
<213> Homo sapiens

<400> 96
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agctgcgcgg cctccgatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc 120
cctgggaagg gtctcgagt ggtgagcgt actaatcgtt atgggtatac ttattatgct 180
gattctgtta agggtcgttt taccatttca cgtgataatt cgaaaaacac cctgtatctg 240
caaatgaaca gcctgcgtgc ggaagatacg gccgtgtatt attgcgcgcg tgatacttat 300
cttcattttg attattgggg ccaaggcacc ctggtgacgg ttagctca 348

<210> 97
<211> 351
<212> DNA
<213> Homo sapiens

<400> 97
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agctgcgcgg cctccgatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc 120
cctgggaagg gtctcgagt ggtgagcaat atcaattatg atggtagctc tacctattat 180
gcg gatagcg tgaaaggccg ttttaccatt tcacgtgata attcgaaaaa caccctgtat 240
ctgcaaatga acagcctgcg tgcggaagat acggccgtgt attattgcgc gcgtgatact 300
tatcttcatt ttgattattg gggccaaggc accctggtga cggttagctc a 351

<210> 98
<211> 348
<212> DNA
<213> Homo sapiens

<400> 98
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agctgcgcgg cctccgatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc 120
cctgggaagg gtctcgagt ggtgagcgtt attactcctt atggtgatac ttattatgct 180
gattctgtta agggtcgttt taccatttca cgtgataatt cgaaaaacac cctgtatctg 240
caaatgaaca gcctgcgtgc ggaagatacg gccgtgtatt attgcgcgcg tgatacttat 300
cttcattttg attattgggg ccaaggcacc ctggtgacgg ttagctca 348

<210> 99
<211> 348
<212> DNA
<213> Homo sapiens

<400> 99
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agctgcgcgg cctccggatt tacctttcgt tctcattggc tttcttgggt gcgccaagcc 120
cctgggaagg gtctcgagtg ggtgagcgtt attactcctt atggtgatac ttattatgct 180
gattctgtta agggtcgttt taccatttca cgtgataatt cgaaaaacac cctgtatctg 240
caaatgaaca gcctgcgtgc ggaagatacg gccgtgtatt attgcgcgcg tgatacttat 300
cttcattttg attattgggg ccaaggcacc ctggtgacgg ttagctca 348

<210> 100
<211> 330
<212> DNA
<213> Homo sapiens

<400> 100
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tcgtgtagcg gcgataatat tggttctttt tatgttcatt ggtaccagca gaaaccggg 120
caggcggcag ttcttgtgat ttatgatgat aataatcgtc cctcaggcat cccggaacgc 180
tttagcggat ccaacagcgg caacaccgcg accctgacca ttagcggcac tcaggcggaa 240
gacgaagcgg attattattg cggttcttgg gctggttcct ctggttctta tgtgtttggc 300
ggccgcacga agttaaccgt tcttggccag 330

<210> 101
<211> 339
<212> DNA
<213> Homo sapiens

<400> 101
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tcgtgtacgg gtactagcag cgatgttggg gatattaatg atgtgtcttg gtaccagcag 120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgccc ctcaggcgtg 180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg 240
caagcgggaag acgaagcggg ttattattgc tcttcttatg gtgagtctct tacttcttat 300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag 339

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

<400> 102
gatatcgaac tgaccagcc gccttcagt agcggtgcac caggtcagac cgcgcgtatc 60
tcgtgtagcg gcgataatat tggttctttt tatgttcatt ggtaccagca gaaaccggg 120
caggcgccag ttcttgtgat ttatgatgat aataatcgtc cctcaggcat cccggaacgc 180
tttagcggat ccaacagcgg caacaccgcg accctgacca ttagcggcac tcaggcggaa 240
gacgaagcgg attattattg cgcttcttgg actggtgttg agcctgatta tgtgtttggc 300
ggcggcacga agttaaccgt tcttggccag 330

<210> 103
<211> 339
<212> DNA
<213> Homo sapiens

<400> 103
gatatcgcac tgaccagcc agcttcagt agcggctcac caggtcagag cattaccatc 60
tcgtgtacgg gtactagcag cgatgttggg gatattaatg atgtgtcttg gtaccagcag 120
catcccgga aggcgccgaa acttatgatt tatgatgtta ataatcgtec ctcaggcgtg 180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg 240
caagcggga acgaagcggg ttattattgc cagtcttatg ctggttctta tctttctgag 300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag 339

<210> 104
<211> 339
<212> DNA
<213> Homo sapiens

<400> 104
gatatcgcac tgaccagcc agcttcagt agcggctcac caggtcagag cattaccatc 60
tcgtgtacgg gtactagcag cgatgttggg gatattaatg atgtgtcttg gtaccagcag 120
catcccgga aggcgccgaa acttatgatt tatgatgtta ataatcgtec ctcaggcgtg 180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg 240
caagcggga acgaagcggg ttattattgc tcttcttatg gtgagtctct tacttcttat 300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag 339

<210> 105
<211> 339
<212> DNA
<213> Homo sapiens

<400> 105
gatatcgcac tgaccagcc agcttcagt agcggctcac caggtcagag cattaccatc 60

tcgtgtacgg gtactagcag cgatgttggt gatattaatg atgtgtcttg gtaccagcag	120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgtcc ctcaggcgtg	180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg	240
caagcgggaag acgaagcggga ttattattgc tcttcttatg gtgagtctct tacttcttat	300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag	339

<210> 106
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 106	
gatatcgcac tgaccagcc agcttcagtg agcggctcac caggtcagag cattaccatc	60
tcgtgtacgg gtactagcag cgatgttggt gatattaatg atgtgtcttg gtaccagcag	120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgtcc ctcaggcgtg	180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg	240
caagcgggaag acgaagcggga ttattattgc tcttcttatg gtgagtctct tacttcttat	300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag	339

<210> 107
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 107	
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tcgtgtacgg gtactagcag cgatgttggt gatattaatg atgtgtcttg gtaccagcag	120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgtcc ctcaggcgtg	180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg	240
caagcgggaag acgaagcggga ttattattgc tcttcttatg gtgagtctct tacttcttat	300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag	339

<210> 108
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 108	
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tcgtgtacgg gtactagcag cgatgttggt gatattaatg atgtgtcttg gtaccagcag	120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgtcc ctcaggcgtg	180

agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg 240
caagcgggaag acgaagcggga ttattattgc tctacttatg atggtcctgg tctttctgag 300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag 339

<210> 109
<211> 339
<212> DNA
<213> Homo sapiens

<400> 109
gatatcgcac tgaccagcc agcttcagtg agcggctcac caggtcagag cattaccatc 60
tcgtgtacgg gtactagcag cgatgttggg gatattaatg atgtgtcttg gtaccagcag 120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgccc ctcaggcgtg 180
agcaaccgtt ttagcggatc caaaagcggc aacaccgcga gcctgaccat tagcggcctg 240
caagcgggaag acgaagcggga ttattattgc tcttcttatg gtgagtctct tacttcttat 300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag 339

<210> 110
<211> 339
<212> DNA
<213> Homo sapiens

<400> 110
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tcgtgtacgg gtactagcag cgatgttggg gatattaatg atgtgtcttg gtaccagcag 120
catcccggga aggcgccgaa acttatgatt tatgatgtta ataatcgccc ctcaggcgtg 180
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caagcgggaag acgaagcggga ttattattgc tctacttatg atggtcctgg tctttctgag 300
gtgtttggcg gcggcacgaa gttaaccgtt cttggccag 339

<210> 111
<211> 469
<212> PRT
<213> Homo sapiens

<400> 111

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe

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

Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
290 295 300

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
305 310 315 320

Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu
325 330 335

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
340 345 350

Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro
355 360 365

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
370 375 380

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
385 390 395 400

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
405 410 415

Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
420 425 430

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
435 440 445

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
450 455 460

Leu Ser Pro Gly Lys
465

<210> 112
<211> 462
<212> PRT
<213> Homo sapiens

<400> 112

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

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

260

265

270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 275 280 285

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 290 295 300

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
 305 310 315 320

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 325 330 335

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 340 345 350

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
 355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
 370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
 405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455 460

<210> 113

<211> 469

<212> PRT

<213> Homo sapiens

<400> 113

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
 1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Val Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

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

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Thr Phe Met His Gly His Leu Gly Gly Gly Leu
115 120 125

Ser Met Asp Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
130 135 140

Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser
145 150 155 160

Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe
165 170 175

Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly
180 185 190

Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
195 200 205

Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr
210 215 220

Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr
225 230 235 240

Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro
245 250 255

Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
260 265 270

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
275 280 285

Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
290 295 300

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
305 310 315 320

Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu
325 330 335

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
340 345 350

Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro
355 360 365

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
370 375 380

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
385 390 395 400

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
405 410 415

Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
420 425 430

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
435 440 445

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
450 455 460

Leu Ser Pro Gly Lys
465

<210> 114
<211> 462
<212> PRT
<213> Homo sapiens

<400> 114

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Asn Ile Asn Tyr Asp Gly Ser Ser Thr Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln
115 120 125

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
145 150 155 160

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
165 170 175

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
180 185 190

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
195 200 205

Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys
210 215 220

Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val
225 230 235 240

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
290 295 300

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
340 345 350

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 115
<211> 461
<212> PRT
<213> Homo sapiens

<400> 115

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Val Thr Gly Val His Gly Asp Thr Tyr Tyr Ala Asp
65 70 75 80

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
85 90 95

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
130 135 140

Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
165 170 175

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

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
195 200 205

Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro
210 215 220

Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu
245 250 255

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
260 265 270

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
275 280 285

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
290 295 300

Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu
305 310 315 320

Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
325 330 335

Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
340 345 350

Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
355 360 365

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
370 375 380

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
385 390 395 400

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly
405 410 415

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
420 425 430

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
435 440 445

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 116

<211> 461

<212> PRT

<213> Homo sapiens

<400> 116

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Val Ile Gly Asn Trp Gly Asp Thr Tyr Tyr Ala Asp
65 70 75 80

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
85 90 95

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
130 135 140

Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
165 170 175

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

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
195 200 205

Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro
210 215 220

Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu

225			230						235					240		
Cys	Pro	Pro	Cys	Pro 245	Ala	Pro	Pro	Val	Ala 250	Gly	Pro	Ser	Val	Phe 255	Leu	
Phe	Pro	Pro	Lys 260	Pro	Lys	Asp	Thr	Leu 265	Met	Ile	Ser	Arg	Thr 270	Pro	Glu	
Val	Thr	Cys 275	Val	Val	Val	Asp	Val 280	Ser	His	Glu	Asp	Pro 285	Glu	Val	Gln	
Phe	Asn 290	Trp	Tyr	Val	Asp	Gly 295	Val	Glu	Val	His	Asn 300	Ala	Lys	Thr	Lys	
Pro 305	Arg	Glu	Glu	Gln 310	Phe	Asn	Ser	Thr	Phe	Arg 315	Val	Val	Ser	Val	Leu 320	
Thr	Val	Val	His 325	Gln	Asp	Trp	Leu	Asn	Gly 330	Lys	Glu	Tyr	Lys	Cys 335	Lys	
Val	Ser	Asn 340	Lys	Gly	Leu	Pro	Ala	Pro 345	Ile	Glu	Lys	Thr	Ile 350	Ser	Lys	
Thr	Lys	Gly 355	Gln	Pro	Arg	Glu	Pro 360	Gln	Val	Tyr	Thr	Leu 365	Pro	Pro	Ser	
Arg	Glu 370	Glu	Met	Thr	Lys	Asn 375	Gln	Val	Ser	Leu	Thr 380	Cys	Leu	Val	Lys	
Gly 385	Phe	Tyr	Pro	Ser 390	Asp	Ile	Ala	Val	Glu	Trp 395	Glu	Ser	Asn	Gly	Gln 400	
Pro	Glu	Asn	Asn 405	Tyr	Lys	Thr	Thr	Pro	Pro 410	Met	Leu	Asp	Ser	Asp 415	Gly	
Ser	Phe	Phe 420	Leu	Tyr	Ser	Lys	Leu	Thr 425	Val	Asp	Lys	Ser	Arg 430	Trp	Gln	
Gln	Gly	Asn 435	Val	Phe	Ser	Cys	Ser 440	Val	Met	His	Glu	Ala 445	Leu	His	Asn	
His	Tyr 450	Thr	Gln	Lys	Ser	Leu 455	Ser	Leu	Ser	Pro	Gly 460	Lys				
<210>		117														
<211>		461														

<212> PRT
<213> Homo sapiens

<400> 117

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Val Thr Thr His Gln Gly Tyr Thr Tyr Tyr Ala Asp
65 70 75 80

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
85 90 95

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
130 135 140

Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
165 170 175

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

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
195 200 205

Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro
210 215 220

Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu
245 250 255

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
260 265 270

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
275 280 285

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
290 295 300

Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu
305 310 315 320

Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
325 330 335

Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
340 345 350

Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
355 360 365

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
370 375 380

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
385 390 395 400

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly
405 410 415

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
420 425 430

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
435 440 445

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 118

<211> 465
<212> PRT
<213> Homo sapiens

<400> 118

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Ala Thr Asn Arg Tyr Gly Tyr Thr Tyr Tyr Ala Asp
65 70 75 80

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
85 90 95

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Ala Lys Thr Thr Ala Pro Ser Val Tyr
130 135 140

Pro Leu Ala Pro Val Cys Gly Asp Thr Thr Gly Ser Ser Val Thr Leu
145 150 155 160

Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr Leu Thr Trp
165 170 175

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

Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val Thr Ser Ser
195 200 205

Thr Trp Pro Ser Gln Ser Ile Thr Cys Asn Val Ala His Pro Ala Ser
210 215 220

Ser Thr Lys Val Asp Lys Lys Ile Glu Pro Arg Gly Pro Thr Ile Lys
225 230 235 240

Pro Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro
245 250 255

Ser Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser
260 265 270

Leu Ser Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp
275 280 285

Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr
290 295 300

Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val
305 310 315 320

Val Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu
325 330 335

Phe Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg
340 345 350

Thr Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val
355 360 365

Leu Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr
370 375 380

Cys Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr
385 390 395 400

Asn Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu
405 410 415

Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys
420 425 430

Lys Asn Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu
435 440 445

Gly Leu His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly
450 455 460

Lys
465

<210> 119
<211> 462
<212> PRT
<213> Homo sapiens

<400> 119

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Asn Ile Asn Tyr Asp Gly Ser Ser Thr Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln
115 120 125

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
145 150 155 160

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
165 170 175

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
180 185 190

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
195 200 205

Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys
210 215 220

Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val
225 230 235 240

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
290 295 300

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
340 345 350

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 120
<211> 461
<212> PRT
<213> Homo sapiens

<400> 120

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Val Ile Thr Pro Tyr Gly Asp Thr Tyr Tyr Ala Asp
65 70 75 80

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
85 90 95

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
130 135 140

Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
165 170 175

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

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

195	200	205
Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro		
210	215	220
Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu		
225	230	235 240
Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu		
	245	250 255
Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu		
	260	265 270
Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln		
	275	280 285
Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys		
	290	295 300
Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu		
	305	310 315 320
Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys		
	325	330 335
Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys		
	340	345 350
Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser		
	355	360 365
Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys		
	370	375 380
Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln		
	385	390 395 400
Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly		
	405	410 415
Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln		
	420	425 430
Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn		
	435	440 445

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 121
<211> 461
<212> PRT
<213> Homo sapiens

<400> 121

Met Ala Trp Val Trp Thr Leu Pro Phe Leu Met Ala Ala Ala Gln Ser
1 5 10 15

Val Gln Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Ser His Trp Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Val Ile Thr Pro Tyr Gly Asp Thr Tyr Tyr Ala Asp
65 70 75 80

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
85 90 95

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Ala Arg Asp Thr Tyr Leu His Phe Asp Tyr Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
130 135 140

Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
165 170 175

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

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
195 200 205

Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro
210 215 220

Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu
245 250 255

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
260 265 270

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln
275 280 285

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
290 295 300

Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu
305 310 315 320

Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
325 330 335

Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
340 345 350

Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
355 360 365

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
370 375 380

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
385 390 395 400

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly
405 410 415

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
420 425 430

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn

435

440

445

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455 460

<210> 122
 <211> 130
 <212> PRT
 <213> Homo sapiens

<400> 122

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
 1 5 10 15

Gly Thr Arg Cys Asp Ile Glu Leu Thr Gln Pro Pro Ser Val Ser Val
 20 25 30

Ala Pro Gly Gln Thr Ala Arg Ile Ser Cys Ser Gly Asp Asn Ile Gly
 35 40 45

Ser Phe Tyr Val His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val
 50 55 60

Leu Val Ile Tyr Asp Asp Asn Asn Arg Pro Ser Gly Ile Pro Glu Arg
 65 70 75 80

Phe Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly
 85 90 95

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

Ser Ser Gly Ser Tyr Val Phe Gly Gly Arg Thr Lys Leu Thr Val Leu
 115 120 125

Gly Gln
 130

<210> 123
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 123

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
 1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser
100 105 110

Tyr Gly Glu Ser Leu Thr Ser Tyr Val Phe Gly Gly Gly Thr Lys Leu
115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 124
<211> 234
<212> PRT
<213> Homo sapiens

<400> 124

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

Gly Thr Arg Cys Asp Ile Glu Leu Thr Gln Pro Pro Ser Val Ser Val
20 25 30

Ala Pro Gly Gln Thr Ala Arg Ile Ser Cys Ser Gly Asp Asn Ile Gly
35 40 45

Ser Phe Tyr Val His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val
50 55 60

Leu Val Ile Tyr Asp Asp Asn Asn Arg Pro Ser Gly Ile Pro Glu Arg
65 70 75 80

Phe Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly
85 90 95

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

Val Glu Pro Asp Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
115 120 125

Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser
130 135 140

Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp
145 150 155 160

Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro
165 170 175

Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn
180 185 190

Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys
195 200 205

Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val
210 215 220

Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230

<210> 125
<211> 237
<212> PRT
<213> Homo sapiens

<400> 125

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser
100 105 110

Tyr Ala Gly Ser Tyr Leu Ser Glu Val Phe Gly Gly Gly Thr Lys Leu
115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly

210

215

220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230 235

<210> 126

<211> 237

<212> PRT

<213> Homo sapiens

<400> 126

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
 1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
 35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
 50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
 65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
 85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser
 100 105 110

Tyr Gly Glu Ser Leu Thr Ser Tyr Val Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
 130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
 145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
 165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
 180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 127
<211> 237
<212> PRT
<213> Homo sapiens

<400> 127

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser
100 105 110

Tyr Gly Glu Ser Leu Thr Ser Tyr Val Phe Gly Gly Gly Thr Lys Leu
115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
145 150 155 160

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

165

170

175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 128

<211> 237

<212> PRT

<213> Homo sapiens

<400> 128

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser
100 105 110

Tyr Gly Glu Ser Leu Thr Ser Tyr Val Phe Gly Gly Gly Thr Lys Leu
115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 129
<211> 237
<212> PRT
<213> Homo sapiens

<400> 129

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser
100 105 110

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

115

120

125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
 130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
 145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
 165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
 180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
 195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
 210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230 235

<210> 130
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 130

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
 1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
 35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
 50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
 65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
 85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Thr
100 105 110

Tyr Asp Gly Pro Gly Leu Ser Glu Val Phe Gly Gly Gly Thr Lys Leu
115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 131
<211> 237
<212> PRT
<213> Homo sapiens

<400> 131

Met Ser Val Leu Thr Gln Val Leu Ala Leu Leu Leu Leu Trp Leu Thr
1 5 10 15

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

Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp
35 40 45

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
50 55 60

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

65					70						75				80
Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr	Ala	Ser	Leu	Thr
				85					90					95	
Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Ser	Ser
			100					105					110		
Tyr	Gly	Glu	Ser	Leu	Thr	Ser	Tyr	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu
		115					120					125			
Thr	Val	Leu	Gly	Gln	Pro	Lys	Ala	Ala	Pro	Ser	Val	Thr	Leu	Phe	Pro
	130					135					140				
Pro	Ser	Ser	Glu	Glu	Leu	Gln	Ala	Asn	Lys	Ala	Thr	Leu	Val	Cys	Leu
145					150				155						160
Ile	Ser	Asp	Phe	Tyr	Pro	Gly	Ala	Val	Thr	Val	Ala	Trp	Lys	Ala	Asp
				165					170					175	
Ser	Ser	Pro	Val	Lys	Ala	Gly	Val	Glu	Thr	Thr	Thr	Pro	Ser	Lys	Gln
			180					185					190		
Ser	Asn	Asn	Lys	Tyr	Ala	Ala	Ser	Ser	Tyr	Leu	Ser	Leu	Thr	Pro	Glu
		195					200					205			
Gln	Trp	Lys	Ser	His	Arg	Ser	Tyr	Ser	Cys	Gln	Val	Thr	His	Glu	Gly
	210					215					220				
Ser	Thr	Val	Glu	Lys	Thr	Val	Ala	Pro	Thr	Glu	Cys	Ser			
225					230					235					
<210> 132															
<211> 237															
<212> PRT															
<213> Homo sapiens															
<400> 132															
Met	Ser	Val	Leu	Thr	Gln	Val	Leu	Ala	Leu	Leu	Leu	Leu	Trp	Leu	Thr
1				5					10					15	
Gly	Thr	Arg	Cys	Asp	Ile	Ala	Leu	Thr	Gln	Pro	Ala	Ser	Val	Ser	Gly
			20					25					30		
Ser	Pro	Gly	Gln	Ser	Ile	Thr	Ile	Ser	Cys	Thr	Gly	Thr	Ser	Ser	Asp
		35					40					45			

Val Gly Asp Ile Asn Asp Val Ser Trp Tyr Gln Gln His Pro Gly Lys
 50 55 60

Ala Pro Lys Leu Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val
 65 70 75 80

Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr
 85 90 95

Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Thr
 100 105 110

Tyr Asp Gly Pro Gly Leu Ser Glu Val Phe Gly Gly Gly Thr Lys Leu
 115 120 125

Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro
 130 135 140

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
 145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
 165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
 180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu
 195 200 205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
 210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230 235

<210> 133
 <211> 1410
 <212> DNA
 <213> Homo sapiens

<400> 133
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 tgcgccgccca gcggcttcac cttcagcagc tacgtgatga actgggtgcg gcaggcccct 180

ggcaagggcc tggagtgggt gtccttcac	agcggcgaca gcagcaaacac ctactacgcc	240
gacagcgtga agggccggtt caccatcagc	cgggacaaca gcaagaacac cctgtacctg	300
cagatgaaca gcctgcgggc cgaggacacc	gccgtgtact actgcgcccg gaccttcacg	360
cacggccacc tgggcgagg actgagcatg	gatttctggg gccagggcac cctggtcacc	420
gtctcctcag cttccaccaa gggcccatcc	gtcttcccc tggcgccctg ctccaggagc	480
acctccgaga gcacagcggc cctgggctgc	ctgggtcaagg actacttccc cgaaccggtg	540
acggtgtcgt ggaactcagg cgctctgacc	agcggcgtgc acaccttccc agctgtccta	600
cagtcctcag gactctactc cctcagcagc	gtgggtgacag tgcctccag caacttcggc	660
acctcagact acacctgcaa cgtagatcac	aagcccagca acaccaaggt ggacaagaca	720
gttgagcgca aatgttgtgt cgagtgccca	ccgtgccag caccacctgt ggcaggaccg	780
tcagtcttcc tcttcccccc aaaacccaag	gacacctca tgatctcccg gacctctgag	840
gtcacgtgcg tgggtgggga cgtgagccac	gaagaccccg aggtccagtt caactggtac	900
gtggacggcg tggaggtgca taatgccaag	acaaagccac gggaggagca gttcaacagc	960
acgttcctg tggtcagcgt cctcacctgt	gtgcaccagg actggctgaa cggcaaggag	1020
tacaagtgca aggtctccaa caaaggctc	ccagccccca tcgagaaaac catctccaaa	1080
accaaagggc agccccgaga accacaggtg	tacacctgc ccccatcccg ggaggagatg	1140
accaagaacc aggtcagcct gacctgctg	gtcaaaggct tctaccccag cgacatcgcc	1200
gtggagtggg agagcaatgg gcagccggag	aacaactaca agaccacacc tcccatgctg	1260
gactccgacg gctccttctt cctctacagc	aagctcaccg tggacaagag caggtggcag	1320
caggggaacg tcttctcatg ctccgtgatg	catgaggctc tgcacaacca ctacacgcag	1380
aagagcctct ccctgtctcc gggtaaata		1410

<210> 134
 <211> 1389
 <212> DNA
 <213> Homo sapiens

<400> 134		
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tgcgccgcca gcggcttcac cttcagaagc	cactggctgt cctgggtgcg gcaggccct	180
ggcaagggcc tggaatgggt gtccaacatc	aactacgacg gcagcagcac ctactacgcc	240
gacagcgtga agggccggtt caccatcagc	cgggacaaca gcaagaacac cctgtacctg	300
cagatgaaca gcctgcgggc cgaggacacc	gccgtgtact actgcgccag ggacacctac	360

ctgcacttcg actactgggg ccagggcacc ctggtcaccg tctcctcagc ttccaccaag	420
ggcccatccg tcttccccct ggcgccctgc tccaggagca cctccgagag cacagcggcc	480
ctgggctgcc tgggtcaagga ctacttcccc gaaccggtga cgggtgctgt gaactcaggc	540
gctctgacca gcggcgtgca caccttccca gctgtcctac agtcctcagg actctactcc	600
ctcagcagcg tggtgacagt gccctccagc aacttcggca cccagaccta cacctgcaac	660
gtagatcaca agcccagcaa caccaaggtg gacaagacag ttgagcgcaa atgttgtgtc	720
gagtgccac cgtgcccagc accacctgtg gcaggaccgt cagtcttctt cttcccccca	780
aaaccaagg acaccctcat gatctcccgg acccctgagg tcacgtgcgt ggtggtggac	840
gtgagccacg aagaccccg aagtccagttc aactggtacg tggacggcgt ggaggtgcat	900
aatgccaa gaagccacg ggaggagcag ttcaacagca cgttccgtgt ggtcagcgtc	960
ctcacctgtg tgcaccagga ctggctgaac ggcaaggagt acaagtgcaa ggtctccaac	1020
aaaggcctcc cagcccccat cgagaaaacc atctccaaaa ccaaagggca gccccgagaa	1080
ccacaggtgt acaccctgcc cccatcccgg gaggagatga ccaagaacca ggtcagcctg	1140
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cagccggaga acaactacaa gaccacacct cccatgctgg actccgacgg ctcttcttct	1260
ctctacagca agctcacctg ggacaagagc aggtggcagc aggggaacgt cttctcatgc	1320
tccgtgatgc atgaggctct gcacaaccac tacacgcaga agagcctctc cctgtctccg	1380
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<210> 135
 <211> 1410
 <212> DNA
 <213> Homo sapiens

<400> 135	
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tgcgccgcca gcggcttcac cttcagcagc tacgtgatga actgggtgcg gcaggcccct	180
ggcaagggcc tggagtgggt gtccttcac agcggcgaca gcagcaaac ctactacgcc	240
gacagcgtga agggccggtt caccatcagc cgggacaaca gcaagaacac cctgtacctg	300
cagatgaaca gcctgcgggc cgaggacacc gccgtgtact actgcgcccg gaccttcagt	360
cacggccacc tgggcggagg actgagcatg gatctctggg gccagggcac cctggtcacc	420
gtctcctcag cttccaccaa gggcccatcc gtcttcccc tggcgccctg ctccaggagc	480
acctccgaga gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg	540

acggtgtcgt	ggaactcagg	cgctctgacc	agcggcgtgc	acaccttccc	agctgtccta	600
cagtcctcag	gactctactc	cctcagcagc	gtggtgacag	tgccctccag	caacttcggc	660
accagacct	acacctgcaa	cgtagatcac	aagcccagca	acaccaaggt	ggacaagaca	720
gttgagcgca	aatgttgtgt	cgagtgccca	ccgtgcccg	caccacctgt	ggcaggaccg	780
tcagtcttcc	tcttcccccc	aaaacccaag	gacaccctca	tgatctcccg	gacccctgag	840
gtcacgtgcg	tgggtggtgga	cgtgagccac	gaagaccccc	aggtccagtt	caactggtac	900
gtggacggcg	tggaggtgca	taatgccaag	acaagccac	gggaggagca	gttcaacagc	960
acgttccgtg	tggtcagcgt	cctcacggtt	gtgcaccagg	actgggtgaa	cggcaaggag	1020
tacaagtgca	aggtctccaa	caaaggcctc	ccagccccca	tcgagaaaac	catctccaaa	1080
accaaagggc	agccccgaga	accacaggtg	tacaccctgc	ccccatcccg	ggaggagatg	1140
accaagaacc	aggtcagcct	gacctgcctg	gtcaaaggct	tctaccccag	cgacatcgcc	1200
gtggagtggg	agagcaatgg	gcagccggag	aacaactaca	agaccacacc	tcccatgctg	1260
gactccgacg	gctccttctt	cctctacagc	aagctcaccg	tggacaagag	caggtggcag	1320
caggggaacg	tcttctcatg	ctccgtgatg	catgaggctc	tgcacaacca	ctacacgcag	1380
aagagcctct	ccctgtctcc	gggtaaatga				1410

<210> 136
 <211> 1389
 <212> DNA
 <213> Homo sapiens

<400> 136	
atggccttggg	tgtggacctt gccattcctg atggcagctg cccaaggtgt ccaggcccag 60
gtgcagctgg	tcgagagcgg cggagggctg gtgcagcctg gcggcagcct gagactgagc 120
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 <213> Homo sapiens

<400> 148	
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agctgcaccg	gcaccagcag cgacgtgggc gacatcaacg acgtgagctg gtatcagcag 180
caccccgcca	aggcccccaa gctgatgata tacgacgtga acaaccggcc cagcggcgtg 240
agcaaccggg	tcagcggcag caagagcggc aacaccgccca gcctgaccat cagcggcctc 300
caggccgagg	acgaggccga ctactactgc agcagctacg gcgagagcct gaccagctac 360
gtgtttggcg	gcggaaccaa gcttaccgtc ctaggtcagc ccaaggctgc cccctcggtc 420
actctgttcc	cgccctcctc tgaggagctt caagccaaca aggccacact ggtgtgtctc 480
ataagtgact	tctaccggg agccgtgaca gtggcctgga aggcagatag cagccccgtc 540
aaggcgggag	tggagacaac cacaccctcc aaacaaagca acaacaagta cgcggccagc 600

agctatctga gcctgacgcc tgagcagtg aagtcaccaca gaagctacag ctgccagggtc	660
acgcatgaag ggagcaccgt ggaaaagaca gtggccccta cagaatgttc atag	714

<210> 149
 <211> 714
 <212> DNA
 <213> Homo sapiens

<400> 149	
atgagtgtgc tcactcaggt cctggcggtg ctgctgctgt ggcttacagg tacgcgttgc	60
gacatcgccc tgaccagacc cgccagcgtg agcggcagcc ctggccagag catcaccatc	120
agctgcaccg gcaccagcag cgacgtgggc gacatcaacg acgtgagctg gtatcagcag	180
caccccgcca agggcccca gctgatgac tacgacgtga acaaccggcc cagcggcgtg	240
agcaaccggg tcagcggcag caagagcggc aacaccgcca gcctgaccat cagcggcctc	300
caggccgagg acgaggccga ctactactgc agcagctacg gcgagagcct gaccagctac	360
gtgtttggcg gcggaaccaa gcttaccgtc ctaggtcagc ccaaggctgc cccctcggtc	420
actctgttcc cgccctctc tgaggagctt caagccaaca aggccacact ggtgtgtctc	480
ataagtgact tctaccggg agccgtgaca gtggcctgga aggcagatag cagccccgtc	540
aaggcgggag tggagacaac cacaccctcc aaacaaagca acaacaagta cgcggccagc	600
agctatctga gcctgacgcc tgagcagtg aagtcaccaca gaagctacag ctgccagggtc	660
acgcatgaag ggagcaccgt ggaaaagaca gtggccccta cagaatgttc atag	714

<210> 150
 <211> 714
 <212> DNA
 <213> Homo sapiens

<400> 150	
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gacatcgccc tgaccagacc cgccagcgtg agcggcagcc ctggccagag catcaccatc	120
agctgcaccg gcaccagcag cgacgtgggc gacatcaacg acgtgagctg gtatcagcag	180
caccccgcca agggcccca gctgatgac tacgacgtga acaaccggcc cagcggcgtg	240
agcaaccggg tcagcggcag caagagcggc aacaccgcca gcctgaccat cagcggcctc	300
caggccgagg acgaggccga ctactactgc agcagctacg gcgagagcct gaccagctac	360
gtgtttggcg gcggaaccaa gcttaccgtc ctaggtcagc ccaaggctgc cccctcggtc	420
actctgttcc cgccctctc tgaggagctt caagccaaca aggccacact ggtgtgtctc	480
ataagtgact tctaccggg agccgtgaca gtggcctgga aggcagatag cagccccgtc	540

aaggcgggag	tggagacaac	cacaccctcc	aaacaaagca	acaacaagta	cgcgggccagc	600
agctatctga	gcctgacgcc	tgagcagtg	aagtcccaca	gaagctacag	ctgccagggtc	660
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<210> 151
 <211> 714
 <212> DNA
 <213> Homo sapiens

<400> 151						
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agctgcaccg	gcaccagcag	cgacgtgggc	gacatcaacg	acgtgagctg	gtatcagcag	180
caccccgcca	aggcccccaa	gctgatgac	tacgacgtga	acaaccggcc	cagcggcgtg	240
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caggccgagg	acgaggccga	ctactactgc	agcagctacg	gagagagcct	gaccagctac	360
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agctatctga	gcctgacgcc	tgagcagtg	aagtcccaca	gaagctacag	ctgccagggtc	660
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<210> 152
 <211> 714
 <212> DNA
 <213> Homo sapiens

<400> 152						
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agctgcaccg	gcaccagcag	cgacgtgggc	gacatcaacg	acgtgagctg	gtatcagcag	180
caccccgcca	aggcccccaa	gctgatgac	tacgacgtga	acaaccggcc	cagcggcgtg	240
agcaaccggt	tcagcggcag	caagagcggc	aacaccgcca	gcctgaccat	cagcggcctc	300
caggccgagg	acgaggccga	ctactactgc	agcacctacg	acggccctgg	cctgagcgag	360
gtgttcggcg	gagggaccaa	gcttaccgtc	ctaggtcagc	ccaaggctgc	cccctcggtc	420
actctgttcc	cgccctcttc	tgaggagctt	caagccaaca	aggccacact	ggtgtgtctc	480
ataagtgact	tctaccggg	agccgtgaca	gtggcctgga	aggcagatag	cagccccgtc	540

aaggcgggag	tggagacaac	cacaccctcc	aaacaaagca	acaacaagta	cgcgggccagc	600
agctatctga	gcctgacgcc	tgagcagtgg	aagtcccaca	gaagctacag	ctgccagggtc	660
acgcatgaag	ggagcacctg	ggaaaagaca	gtggccccta	cagaatgttc	atag	714

<210> 153
 <211> 714
 <212> DNA
 <213> Homo sapiens

<400> 153	
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gacatcgccc	tgaccagcc cgccagcgtg agcggcagcc ctggccagag catcaccatc 120
agctgcaccg	gcaccagcag cgacgtgggc gacatcaacg acgtgagctg gtatcagcag 180
caccccgcca	aggcccccaa gctgatgata tacgacgtga acaaccggcc cagcggcgtg 240
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ataagtgact	tctaccggg agcctgaca gtggcctgga aggcagatag cagccccgtc 540
aaggcgggag	tggagacaac cacaccctcc aaacaaagca acaacaagta cgcgggccagc 600
agctatctga	gcctgacgcc tgagcagtgg aagtcccaca gaagctacag ctgccagggtc 660
acgcatgaag	ggagcacctg ggaaaagaca gtggccccta cagaatgttc atag 714

<210> 154
 <211> 714
 <212> DNA
 <213> Homo sapiens

<400> 154	
atgagtgtgc	tcactcaggt cctggcggtg ctgctgctgt ggcttacagg tacgcgttgc 60
gacatcgccc	tgaccagcc cgccagcgtg agcggcagcc ctggccagag catcaccatc 120
agctgcaccg	gcaccagcag cgacgtgggc gacatcaacg acgtgagctg gtatcagcag 180
caccccgcca	aggcccccaa gctgatgata tacgacgtga acaaccggcc cagcggcgtg 240
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caggccgagg	acgaggccga ctactactgc agcacctacg acggccctgg cctgagcgag 360
gtgttcggcg	gagggaccaa gcttacgctc ctaggtcagc ccaaggctgc cccctcggtc 420
actctgttcc	cgccctcctc tgaggagctt caagccaaca aggccacact ggtgtgtctc 480

ataagtgact tctacccggg agccgtgaca gtggcctgga aggcagatag cagccccgtc	540
aaggcgggag tggagacaac cacaccctcc aaacaaagca acaacaagta cgcggccagc	600
agctatctga gcctgacgcc tgagcagtgg aagtcccaca gaagctacag ctgccaggtc	660
acgcatgaag ggagcacctg ggaaaagaca gtggccccta cagaatgttc atag	714

<210> 155
 <211> 213
 <212> PRT
 <213> homo sapiens

<400> 155

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Ala	Phe	Arg	Val	Val	Glu	Gly	Gln	Gly	Trp	Gln	Ala	Phe	Lys	Asn	Asp
			20					25					30		

Ala	Thr	Glu	Ile	Ile	Pro	Glu	Leu	Gly	Glu	Tyr	Pro	Glu	Pro	Pro	Pro
		35					40					45			

Glu	Leu	Glu	Asn	Asn	Lys	Thr	Met	Asn	Arg	Ala	Glu	Asn	Gly	Gly	Arg
	50					55					60				

Pro	Pro	His	His	Pro	Phe	Glu	Thr	Lys	Asp	Val	Ser	Glu	Tyr	Ser	Cys
65					70					75					80

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

Ala	Lys	Pro	Val	Thr	Glu	Leu	Val	Cys	Ser	Gly	Gln	Cys	Gly	Pro	Ala
			100					105					110		

Arg	Leu	Leu	Pro	Asn	Ala	Ile	Gly	Arg	Gly	Lys	Trp	Trp	Arg	Pro	Ser
	115						120					125			

Gly	Pro	Asp	Phe	Arg	Cys	Ile	Pro	Asp	Arg	Tyr	Arg	Ala	Gln	Arg	Val
	130					135					140				

Gln	Leu	Leu	Cys	Pro	Gly	Gly	Glu	Ala	Pro	Arg	Ala	Arg	Lys	Val	Arg
145					150					155					160

Leu	Val	Ala	Ser	Cys	Lys	Cys	Lys	Arg	Leu	Thr	Arg	Phe	His	Asn	Gln
				165					170					175	

Ser Glu Leu Lys Asp Phe Gly Thr Glu Ala Ala Arg Pro Gln Lys Gly

180

185

190

Arg Lys Pro Arg Pro Arg Ala Arg Ser Ala Lys Ala Asn Gln Ala Glu
195 200 205

Leu Glu Asn Ala Tyr
210

<210> 156
<211> 14
<212> PRT
<213> Homo sapiens

<400> 156

Ala Arg Leu Leu Asn Ala Ile Gly Arg Gly Lys Trp Trp Arg
1 5 10

<210> 157
<211> 15
<212> PRT
<213> Homo sapiens

<400> 157

Arg Leu Val Ala Ser Cys Lys Cys Lys Arg Leu Thr Arg Phe His
1 5 10 15

<210> 158
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Protein linker sequence

<400> 158

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1 5 10

<210> 159
<211> 19
<212> PRT
<213> Artificial

<220>
<223> Protein linker sequence

<400> 159

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly

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	aggactttat gataatttat t	21
<210>	162	
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<213>	Artificial	
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<223>	siRNA	
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	atagtggta aataactcca g	21
<210>	163	
<211>	21	
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	ggagttattt aaccactatt t	21
<210>	164	
<211>	21	
<212>	DNA	
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<210>	165	
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<210>	166	
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<210>	169	
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<210> 170
<211> 29
<212> DNA
<213> Artificial

<220>
<223> RT-PCT primer

<400> 170
atgcagctcc cactggccct gtgtcttgt

29

<210> 171
<211> 30
<212> DNA
<213> Artificial

<220>
<223> RT-PCR primer

<400> 171
aatcaggccg agctggagaa cgcctactag

30