

4358741_1
SEQUENCE LISTING

<110> AMGEN INC.

<120> METHOD OF TREATING OR AMELIORATING METABOLIC DISORDERS USING
BINDING PROTEINS FOR GASTRIC INHIBITORY PEPTIDE RECEPTOR (GIPR)
IN COMBINATION WITH GLP-1 AGONISTS

<130> A-2029-WO-PCT

<140> 62/387,486

<141> 2015-12-23

<140> 62/337,799

<141> 2016-05-17

<140> 62/420,415

<141> 2016-11-10

<150> XX/XXX,XXX

<151> 2016-12-21

<160> 3225

<170> PatentIn version 3.5

<210> 1

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 1

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

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

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

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

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

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

Asn Gly Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 2

<211> 108

<212> PRT

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 2

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 3

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

4358741_1
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
 100 105

<210> 4
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 4
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
 85 90 95

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

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

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 5
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

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

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

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

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Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 6

<211> 114

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 6

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 7

<211> 114

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 7

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 8

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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 8

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

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

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 9
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
 20 25 30

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

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

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

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 10
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 10
 Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

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

<210> 11
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 11
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Val Lys Arg
100 105

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 12
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 13

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 13

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

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

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

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

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

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

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 14

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

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<400> 14

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

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

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

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

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

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

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 15

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 15

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

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

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

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

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

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg
100 105

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<210> 16

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 16

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

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

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

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

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

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg
 100 105

<210> 17

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 17

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

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

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

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

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

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Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg
100 105

<210> 18

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 18

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

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

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

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

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

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Val Lys Arg
100 105

<210> 19

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 19

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

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

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

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

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

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg
100 105

<210> 20

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 20

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

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

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

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

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

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg
100 105

<210> 21

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 21

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 22

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 22

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 23

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 23

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 24

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 24

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

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

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 25
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
 100 105

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

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 26
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15

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

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

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

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

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Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 27
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 28
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 28
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 29
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 30
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

4358741_1

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 31
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 31
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 32
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4358741_1

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 32

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 33

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<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 33

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

4358741_1

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

<210> 34

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 34

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 35

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 35

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

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

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

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

4358741_1

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 36

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 36

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 37

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 37

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

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

4358741_1

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

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

<210> 38

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 38

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
 100 105

<210> 39

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 39

4358741_1

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 40

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 40

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

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

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

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

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

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

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

<210> 41

<211> 107

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 41

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

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

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

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

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

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

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

<210> 42

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 42

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

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

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

4358741_1

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

<210> 43
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 43
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 44
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 44
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

4358741_1

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

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

<210> 45
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 45
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 46
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 46
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

4358741_1

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

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

<210> 47

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 47

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

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

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

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

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

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

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

<210> 48

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 48

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

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

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

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

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

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

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

<210> 49

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 49

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

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

4358741_1

<210> 50

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 50

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 51

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 51

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

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

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

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

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

4358741_1

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
 100 105

<210> 52

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 52

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
 100 105

<210> 53

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 53

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

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

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

4358741_1

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 54

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 54

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 55

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 55

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

4358741_1

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

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

<210> 56

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 56

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

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

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

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

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

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

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

<210> 57

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 57

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

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

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

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

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

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

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

<210> 58

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 58

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

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

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

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

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

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

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

4358741_1

<210> 59
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 59
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

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

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

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

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

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

<210> 60
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 60
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

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

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

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

4358741_1

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

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

<210> 61
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 61
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 62
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 62
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

4358741_1

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

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

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

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

<210> 63

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 63

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

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

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

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

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

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

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

<210> 64

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 64

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

4358741_1

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

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

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

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

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

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

<210> 65
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 65
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 66
<211> 107
<212> PRT
<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 66

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

<210> 67

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 67

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

4358741_1
 Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
 100 105

<210> 68
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 68
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
 20 25 30

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

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

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

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

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
 100 105

<210> 69
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 69
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
 20 25 30

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

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

4358741_1

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

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

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
100 105

<210> 70

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 70

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
20 25 30

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

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

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

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

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
100 105

<210> 71

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 71

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

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

4358741_1

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
 85 90 95

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

<210> 72

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 72

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

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
 85 90 95

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

<210> 73

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 73

4358741_1

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

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

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

<210> 74

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 74

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

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

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

<210> 75

<211> 108

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 75

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

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Phe Pro Leu
 85 90 95

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

<210> 76

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 76

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

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Tyr Pro Leu
 85 90 95

4358741_1

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

<210> 77
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 77
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

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

<210> 78
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 78
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

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

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

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

4358741_1

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

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

<210> 79
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 79
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

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

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

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

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 80
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 80
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

4358741_1

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

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

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

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 81

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 81

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

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

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

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

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 82

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 82

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

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

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

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

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 83

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 83

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

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

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

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

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

4358741_1

<210> 84

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 84

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

<210> 85

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 85

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

4358741_1

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 86
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 86
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 87
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 87
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

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

4358741_1

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 88

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 88

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 89

<211> 114

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 89

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 90

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 90

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

4358741_1

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 91
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 91
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 92
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 92
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

4358741_1

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 93

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 93

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 94
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 94
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
 35 40 45
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg

<210> 95
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 95
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

4358741_1

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg

<210> 96

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 96

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg

<210> 97

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 97

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 98

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 98

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

4358741_1

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 99

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 99

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 100

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 100

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 101

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 101

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

4358741_1

<210> 102

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 102

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 103

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 103

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

4358741_1

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 104

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 104

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

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

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

Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 105

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 105

4358741_1

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 106

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 106

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

4358741_1

Lys Arg

<210> 107
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 107
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg

<210> 108
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 108
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

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

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

4358741_1

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 109

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 109

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 110

<211> 114

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 110

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

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

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

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

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg

<210> 111

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 111

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

4358741_1

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 112

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 112

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 113

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 113

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

4358741_1

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 114

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 114

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

4358741_1

<210> 115
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 115
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg

<210> 116
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 116
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
 50 55 60

4358741_1

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 117

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 117

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 118

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 118

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 119

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 119

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

4358741_1

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 120

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 120

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

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

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 121

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 121

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

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

4358741_1

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

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 122

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 122

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

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

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

Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 123

<211> 114

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 123

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

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

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

Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 124

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 124

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

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

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

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

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

4358741_1

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

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

<210> 125

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 125

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

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

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

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

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

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

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

<210> 126

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 126

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

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

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

4358741_1

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

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

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

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

<210> 127

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 127

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

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

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

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

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

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

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

<210> 128

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 128

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

4358741_1

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

<210> 129
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 129
Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

<210> 130
<211> 111
<212> PRT
<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 130

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

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

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

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

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

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

Asn Gly Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 131

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 131

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

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

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

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

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

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

4358741_1

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

<210> 132

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 132

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

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

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

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

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

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

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

<210> 133

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 133

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

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

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

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

4358741_1

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

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

Asn Ala Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 134

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 134

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

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

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

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

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

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

Asn Gly Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 135

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 135

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

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

4358741_1

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

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

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

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

Asn Ala Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 136

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 136

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

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

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

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

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

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

Asn Ala Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 137

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 137

4358741_1

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

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

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

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

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

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

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

<210> 138

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 138

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 139

<211> 108

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 139

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg
100 105

<210> 140

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 140

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

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

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

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

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

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

4358741_1

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

<210> 141
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 141
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Thr Arg
100 105

<210> 142
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 142
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

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

Tyr Val Ser Trp Tyr Glu Gln Phe Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

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

4358741_1

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

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

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

<210> 143
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 143
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 144
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 144
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

4358741_1

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 145

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 145

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Thr Arg
100 105

<210> 146

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 146

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 147

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 147

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

4358741_1

<210> 148

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 148

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
 20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
 100 105

<210> 149

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 149

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

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

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

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

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

4358741_1

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

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

<210> 150
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 150
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

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

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

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

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

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

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

<210> 151
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 151
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

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

Tyr Val Ser Trp Tyr Glu Gln Phe Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

4358741_1

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

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

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

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

<210> 152

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 152

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

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

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

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

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

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

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

<210> 153

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 153

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

4358741_1

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

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

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

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

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

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

<210> 154

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 154

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

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

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

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

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

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

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

<210> 155

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 155

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

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

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

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

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

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

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

<210> 156

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 156

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

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

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

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

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

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

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

4358741_1

<210> 157
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 157
 Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
 20 25 30

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

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
 100 105

<210> 158
 <211> 128
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 158
 Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

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

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

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

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

4358741_1

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

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 159

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 159

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

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

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

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn 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 His Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 160

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 160

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

4358741_1

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 161

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 161

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

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

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

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

Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

4358741_1

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 162
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 162
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

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

<210> 163
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 163
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

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

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110

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

<210> 164

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 164

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

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

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

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

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

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

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

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

<210> 165

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 165

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

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

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

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

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

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

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

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

<210> 166

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 166

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

4358741_1

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 167

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 167

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

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

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

Ala Ala Ile Trp Phe Asp Gly Ser Asp Lys 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 168

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 168

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

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

4358741_1

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 169

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 169

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

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

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

4358741_1

<210> 170
 <211> 117
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 170
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gln Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Ala Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Met Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg Asp Val Ala Val Ala Gly Phe Asp Tyr Trp Gly Gln Gly Thr Leu
 100 105 110
 Val Thr Val Ser Ser
 115

<210> 171
 <211> 117
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 171
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Ala Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60

4358741_1

Ser Arg Val Thr Met Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Asp Val Ala Val Ala Gly Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 172

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 172

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 173

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 173

4358741_1

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 174

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 174

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

4358741_1

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 175
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 175
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 176
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 176
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 177

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 177

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 178

<211> 121

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 178

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 179

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 179

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

4358741_1

Leu Gln Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 180

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 180

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 181

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 181

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn 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 His Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 182

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 182

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn Tyr Ala Asp Ala 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 His Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

4358741_1

<210> 183
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 183
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Val Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 184
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 184
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
 50 55 60

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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 Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 185

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 185

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn 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 His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 186

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 186

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 187

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 187

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110 4358741_1

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 188
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 188
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 189
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 189
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

4358741_1

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 190

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 190

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 191

<211> 121

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 191

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 192

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 192

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

4358741_1

Leu Gln Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 193
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 193
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 194
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 194
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 195

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 195

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

4358741_1

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 196

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 196

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 197

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 197

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

4358741_1

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 198

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 198

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 199

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 199

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 200

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 200

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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

4358741_1

Ala Arg Asp Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 201
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 201
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 202
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 202
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

4358741_1

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 203

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 203

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

4358741_1

<210> 204
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 204
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 205
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 205
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60

4358741_1

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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 206

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 206

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 207

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 207

4358741_1

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 208

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 208

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

4358741_1

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 209
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 209
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 210
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 210
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

4358741_1

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 211

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 211

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 212

<211> 121

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 212

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 213

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 213

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Lys Asn Thr Leu Tyr
65 70 75 80

4358741_1

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 214

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 214

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 215

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 215

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 216

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 216

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

4358741_1

<210> 217
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 217
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 218
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 218
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60

4358741_1

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 219

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 219

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 220

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 220

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 221

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 221

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 222
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 222
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 223
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 223
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

4358741_1

Gly Met His Trp Val Arg Gln Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 224

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 224

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Glu Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 225

<211> 120

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 225

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Glu Asp Ser Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
100 105 110Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 226

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 226

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Glu Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

4358741_1

Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 227
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 227
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Glu Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 228
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 228
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45
Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 229
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 229
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45
Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

4358741_1

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 230
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 230
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Gly Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 231
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 231
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

4358741_1

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 232

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 232

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 233

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 233

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 234

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 234

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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

4358741_1

Ala Arg Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 235
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 235
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 236
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 236
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

4358741_1

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 237

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 237

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

4358741_1

<210> 238
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 238
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
 20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
 100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

<210> 239
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 239
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
 20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

4358741_1

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 240

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 240

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 241

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 241

4358741_1

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 242

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 242

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

4358741_1

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 243
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 243
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 244
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 244
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

4358741_1

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 245

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 245

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 246

<211> 123

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 246

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Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1          5          10          15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
          20          25          30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
          35          40          45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
          50          55          60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65          70          75          80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
          85          90          95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
          100          105          110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
          115          120

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<210> 247

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 247

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1          5          10          15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
          20          25          30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
          35          40          45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
          50          55          60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65          70          75          80

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4358741_1

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 248

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 248

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 249

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 249

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

4358741_1

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 250

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 250

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

4358741_1

<210> 251
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 251
 Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 252
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 252
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60

4358741_1

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 253

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 253

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 254

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 254

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 255

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 255

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

4358741_1

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 256

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 256

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
 35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
 50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 257

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 257

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

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Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
 35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
 50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 258

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 258

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
 35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
 50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 259

<211> 123

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 259

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
 35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
 50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 260

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 260

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
 35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
 50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

4358741_1

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 261

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 261

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 262

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 262

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95
Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 263
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 263
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

4358741_1
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 264
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 264
 Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 265
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 265
 Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

4358741_1

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 266

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 266

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 267

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 267

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 268

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 268

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

4358741_1

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 269
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 269
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 270
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 270
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

4358741_1

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 271

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 271

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

4358741_1

<210> 272
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 272
 Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 273
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 273
 Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

4358741_1

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 274

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 274

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 275

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 275

4358741_1

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 276

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 276

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

4358741_1

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 277
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 277
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 278
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 278
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

4358741_1

Gly Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 279

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 279

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 280

<211> 123

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 280

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 281

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 281

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

4358741_1

Met Glu Leu Ser Arg₈₅ Leu Arg Ser Asp₉₀ Asp Thr Ala Val Tyr₉₅ Cys

Ala Arg Gly Gly₁₀₀ Asp Tyr Val Trp Gly₁₀₅ Thr Tyr Arg Pro His₁₁₀ Tyr Tyr

Tyr Gly Met₁₁₅ Asp Val Trp Gly Gln₁₂₀ Gly Thr Thr Val Thr₁₂₅ Val Ser Ser

<210> 282

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 282

Gln Met Gln Val₅ Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly₁₅ Ala₁

Ser Val Lys Val₂₀ Ser Cys Lys Ala Ser₂₅ Gly Tyr Thr Phe Thr₃₀ Gly Tyr

Tyr Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Gln Gly Leu₄₅ Glu Trp Met

Gly Trp Ile Asn Pro Asn₅₅ Ser Gly Gly Thr Asn Tyr₆₀ Ala Gln Lys Phe₅₀

Gln Gly Arg Val Thr Met₇₀ Thr Arg Asp Thr Ser₇₅ Ile Ser Thr Ala Tyr₈₀₆₅

Met Glu Leu Ser Arg₈₅ Leu Arg Ser Asp₉₀ Asp Thr Ala Val Tyr₉₅ Tyr Cys

Ala Arg Gly Gly₁₀₀ Asp Tyr Val Trp Gly₁₀₅ Thr Tyr Arg Pro His₁₁₀ Tyr Tyr

Tyr Gly Met₁₁₅ Asp Val Trp Gly Gln₁₂₀ Gly Thr Thr Val Thr₁₂₅ Val Ser Ser

<210> 283

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 283

Gln Met Gln Val₅ Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly₁₅ Ala₁

4358741_1

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 284

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 284

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

4358741_1

<210> 285
 <211> 128
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 285
 Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

<210> 286
 <211> 128
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 286
 Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

4358741_1

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 287

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 287

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 288

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 288

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 289

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 289

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

4358741_1

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 290

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 290

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 291

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 291

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

4358741_1

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 292

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 292

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 293

<211> 128

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 293

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Gly Gly Asp Tyr Val Phe Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 294

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 294

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

4358741_1

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Phe Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 295
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 295
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 296
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 296
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 297

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 297

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

4358741_1

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

<210> 298
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 298
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Phe His 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 Ser Ala Met Tyr Phe Cys
 85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
 100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser
 115 120

<210> 299
 <211> 129
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 299
 Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45

4358741_1

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 300

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 300

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 301

<211> 121

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 301

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala Met Tyr Phe Cys
85 90 95Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110Gln Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 302

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 302

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

4358741_1

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 303
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 303
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 304
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 304
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 305

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 305

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

4358741_1

Gln Gly Thr Lys Val Thr Val Ser Ser
115 120

<210> 306
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 306
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 307
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 307
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

4358741_1

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 308

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 308

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 309
 <211> 129
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 309
 Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
 100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120 125

Ser

<210> 310
 <211> 129
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 310
 Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

4358741_1

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 311

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 311

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

4358741_1

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 312

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 312

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Phe Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 313

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 313

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

4358741_1

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Gly Gly Asp Tyr Val Phe Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser

<210> 314

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 314

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

4358741_1

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 315

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 315

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Asp Ser Leu
85 90 95

Asn Gly Pro 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

4358741_1

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 316

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 316

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

4358741_1

<210> 317
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 317
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
 20 25 30
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
 35 40 45
 Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

4358741_1

<210> 318

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 318

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Phe Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
 85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
 100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 195 200 205

Asn Arg Gly Glu Cys
 210

<210> 319

<211> 220

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 319

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 320

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 320

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly His
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 321

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 321

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 322

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 322

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 323

<211> 215

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 323

4358741_1

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Gln Glu
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 324

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 324

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

4358741_1

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Val Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 325

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 325

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

4358741_1

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 326

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 326

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

4358741_1

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 327

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 327

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Leu Ile Ile Trp
20 25 30

4358741_1

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Asn Ser Phe Pro Pro
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
 210

<210> 328

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 328

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Leu Ile Ile Trp
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

4358741_1

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Asn Ser Phe Pro Pro
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 329
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 329
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

4358741_1

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 330

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 330

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

4358741_1

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 331
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 331
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

4358741_1

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 332

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 332

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

4358741_1

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 333
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 333
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

4358741_1

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 334

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 334

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Glu
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe
85 90 95

4358741_1

Thr Phe Gly Gln Gly Thr Lys Val Asp Val Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 335

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 335

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

4358741_1

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 336

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 336

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

4358741_1

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140
Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160
Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175
Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190
Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205
Phe Asn Arg Gly Glu Cys
210

<210> 337
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 337
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

4358741_1

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 338

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 338

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

4358741_1

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 339
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 339
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

4358741_1

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 340

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 340

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

4358741_1

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 341
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 341
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

4358741_1

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 342

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 342

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr His Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

4358741_1

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 343

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 343

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

4358741_1

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 344

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 344

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

4358741_1

Ser Thr Leu Thr 180 Leu Ser Lys Ala Asp 185 Tyr Glu Lys His Lys 190 Val Tyr

Ala Cys Glu 195 Val Thr His Gln Gly 200 Leu Ser Ser Pro Val 205 Thr Lys Ser

Phe Asn Arg Gly Glu Cys 210

<210> 345

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 345

Asp Ile Gln Met Thr 5 Gln Ser Pro Ser 10 Ser Leu Ser Ala Ser 15 Ile Gly 1

Asp Arg Val Thr 20 Ile Thr Cys Arg Ala 25 Ser Gln Asp Leu Arg 30 Asn Tyr

Leu Gly Trp 35 Tyr His Gln Lys Pro 40 Gly Lys Ala Pro 45 Lys Leu Leu Ile

Tyr Gly Ala Ser Ser Leu 55 Gln Ser Gly Val Pro 60 Ser Arg Phe Ser Gly 50

Ser Gly Ser Gly Thr 70 Glu Phe Thr Leu Thr 75 Ile Ser Ser Leu Gln Pro 80 65

Glu Asp Phe Ala Thr 85 Tyr Tyr Cys Leu 90 Gln His Asn Asn Tyr Pro 95 Phe

Thr Phe Gly Pro 100 Gly Thr Lys Val Asp 105 Ile Lys Arg Thr Val 110 Ala Ala

Pro Ser Val 115 Phe Ile Phe Pro 120 Ser Asp Glu Gln Leu 125 Lys Ser Gly

Thr Ala Ser Val Val Cys 135 Leu Leu Asn Asn Phe Tyr 140 Pro Arg Glu Ala 130

Lys Val Gln Trp Lys 150 Val Asp Asn Ala Leu 155 Gln Ser Gly Asn Ser Gln 145 160

Glu Ser Val Thr 165 Glu Gln Asp Ser Lys Asp 170 Ser Thr Tyr Ser 175 Leu Ser

4358741_1

Ser Thr Leu Thr₁₈₀ Leu Ser Lys Ala Asp₁₈₅ Tyr Glu Lys His Lys₁₉₀ Val Tyr

Ala Cys Glu₁₉₅ Val Thr His Gln Gly₂₀₀ Leu Ser Ser Pro Val₂₀₅ Thr Lys Ser

Phe Asn Arg Gly Glu Cys₂₁₀

<210> 346

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 346

Asp Ile Gln Met Thr₅ Gln Ser Pro Ser₁₀ Leu Ser Ala Ser Ile Gly₁₅

Asp Arg Val Thr₂₀ Ile Thr Cys Arg Ala₂₅ Ser Gln Asp Leu Arg₃₀ Asn Tyr

Leu Gly Trp₃₅ Tyr Gln Gln Lys Pro₄₀ Gly Lys Ala Pro Lys₄₅ Arg Leu Ile

Tyr Gly₅₀ Ala Ser Ser Leu Gln₅₅ Ser Gly Val Pro Ser₆₀ Arg Phe Ser Gly

Ser Gly Ser Gly Thr Glu₇₀ Phe Thr Leu Thr Ile₇₅ Ser Ser Leu Gln Pro₈₀

Glu Asp Phe Ala Thr₈₅ Tyr Tyr Cys Leu Gln₉₀ His Asn Asn Tyr Pro₉₅ Phe

Thr Phe Gly Pro₁₀₀ Gly Thr Lys Val Asp₁₀₅ Ile Lys Arg Thr Val₁₁₀ Ala Ala

Pro Ser Val₁₁₅ Phe Ile Phe Pro Pro₁₂₀ Ser Asp Glu Gln Leu Lys Ser Gly

Thr Ala Ser Val Val Cys Leu₁₃₅ Leu Asn Asn Phe Tyr₁₄₀ Pro Arg Glu Ala

Lys Val Gln Trp Lys Val₁₅₀ Asp Asn Ala Leu Gln₁₅₅ Ser Gly Asn Ser Gln₁₆₀

Glu Ser Val Thr Glu₁₆₅ Gln Asp Ser Lys Asp₁₇₀ Ser Thr Tyr Ser Leu Ser₁₇₅

Ser Thr Leu Thr₁₈₀ Leu Ser Lys Ala Asp₁₈₅ Tyr Glu Lys His Lys₁₉₀ Val Tyr

4358741_1

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 347

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 347

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

4358741_1

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 348

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 348

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr His Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

4358741_1

Phe Asn Arg Gly Glu Cys
210

<210> 349

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 349

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr His Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 350

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 350

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 351
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 351
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
 20 25 30
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

4358741_1

<210> 352

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 352

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
 20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
 100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
 210

<210> 353

<211> 214

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 353

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
 20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
 100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
 210

<210> 354

<211> 213

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 354

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1      5      10     15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20     25     30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35     40     45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50     55     60

Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65     70     75     80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85     90     95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100    105    110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115    120    125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130    135    140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145    150    155    160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165    170    175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180    185    190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195    200    205

Asn Arg Gly Glu Cys
210

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<210> 355

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 355

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 356

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 356

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 357

<211> 213

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 357

4358741_1

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 358

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 358

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

4358741_1

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 359

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 359

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

4358741_1

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Ser Phe Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
 85 90 95
 Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
 100 105 110
 Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125
 Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140
 Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160
 Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175
 Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190
 Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 195 200 205
 Asn Arg Gly Glu Cys
 210

<210> 360

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 360

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
 20 25 30

4358741_1

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 361

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 361

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

4358741_1

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
 85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
 100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 195 200 205

Asn Arg Gly Glu Cys
 210

<210> 362

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 362

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

4358741_1

Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Ile Leu Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 363
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 363
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

4358741_1

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 364

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 364

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

4358741_1

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 365
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 365
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

4358741_1

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 366

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 366

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

4358741_1

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 367
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 367
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

4358741_1

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 368

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 368

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

4358741_1

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 369

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 369

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

4358741_1

Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 370

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 370

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

4358741_1

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 371
<211> 213
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 371
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

4358741_1

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 195 200 205

Asn Arg Gly Glu Cys
 210

<210> 372

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 372

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
 85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
 100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125

4358741_1

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 373
<211> 213
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 373
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

4358741_1

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 195 200 205

Asn Arg Gly Glu Cys
 210

<210> 374

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 374

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
 85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
 100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

4358741_1

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 375
<211> 213
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 375
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

4358741_1

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 376

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 376

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

4358741_1

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 377

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 377

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

4358741_1

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 378

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 378

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

4358741_1

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 379

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 379

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
85 90 95

Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

4358741_1

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 195 200 205

Asn Arg Gly Glu Cys
 210

<210> 380

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 380

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Thr Asn Tyr
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Asp Ala Ser Asn Leu Glu Pro Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asp Leu Phe Thr
 85 90 95

Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro
 100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

4358741_1

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Cys
210

<210> 381

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 381

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

4358741_1

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 382

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 382

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

4358741_1

Phe Asn Arg Gly Glu Cys
210

<210> 383
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 383
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 384
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 384
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Thr Ser Thr
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Arg Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 385
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 385
 Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80
 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
 85 90 95
 Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

4358741_1

<210> 386

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 386

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 387

<211> 214

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 387

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
 85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
 210

<210> 388

<211> 214

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 388

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Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1      5      10      15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
      20      25      30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
      35      40      45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Val Ser Gly
      50      55      60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65      70      75      80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
      85      90      95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
      100      105      110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
      115      120      125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
      130      135      140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145      150      155      160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
      165      170      175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
      180      185      190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
      195      200      205

Phe Asn Arg Gly Glu Cys
      210

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<210> 389

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 389

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Phe Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 390

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 390

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Tyr Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 391

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 391

4358741_1

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 392

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 392

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

4358741_1

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 393
<211> 215
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 393
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

4358741_1

Glu Arg Ala Thr₂₀ Leu Ser Cys Arg Ala₂₅ Ser Gln Ser Ile₃₀ Ser Tyr Ser
 Tyr Leu Ala₃₅ Trp Tyr Gln Gln Lys₄₀ Pro Gly Gln Ala₄₅ Pro Arg Leu Leu
 Ile Tyr₅₀ Gly Ala Ser Ser Arg₅₅ Ala Thr Gly Ile₆₀ Pro Asp Arg Phe Ser
 Gly₆₅ Ser Gly Ser Gly Thr₇₀ Asp Phe Thr Leu Thr₇₅ Ile Ser Arg Leu Glu₈₀
 Pro Asp Asp Phe Ala₈₅ Val Tyr Tyr Cys Gln₉₀ Gln Tyr Gly Ser Ser₉₅ Pro
 Leu Thr Phe Gly₁₀₀ Gly Gly Thr Lys Val₁₀₅ Glu Ile Lys Arg Thr₁₁₀ Val Ala
 Ala Pro Ser₁₁₅ Val Phe Ile Phe Pro₁₂₀ Pro Ser Asp Glu Gln₁₂₅ Leu Lys Ser
 Gly Thr₁₃₀ Ala Ser Val Val Cys₁₃₅ Leu Leu Asn Asn Phe₁₄₀ Tyr Pro Arg Glu
 Ala Lys Val Gln Trp Lys₁₅₀ Val Asp Asn Ala Leu₁₅₅ Gln Ser Gly Asn Ser₁₆₀
 Gln Glu Ser Val Thr₁₆₅ Glu Gln Asp Ser Lys₁₇₀ Asp Ser Thr Tyr Ser₁₇₅ Leu
 Ser Ser Thr Leu₁₈₀ Thr Leu Ser Lys Ala₁₈₅ Asp Tyr Glu Lys His₁₉₀ Lys Val
 Tyr Ala Cys₁₉₅ Glu Val Thr His Gln₂₀₀ Gly Leu Ser Ser Pro₂₀₅ Val Thr Lys
 Ser Phe Asn Arg Gly Glu Cys₂₁₅

<210> 394

<211> 215

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 394

Glu Ile Val Leu Thr₅ Gln Ser Pro Gly Thr₁₀ Leu Ser Leu Ser Pro Gly₁₅
 1

Glu Arg Ala Thr₂₀ Leu Ser Cys Arg Ala₂₅ Ser Gln Ser Ile₃₀ Ser Tyr Ser

4358741_1

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45
 Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60
 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Gln Glu
 65 70 75 80
 Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95
 Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
 100 105 110
 Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
 115 120 125
 Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
 130 135 140
 Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
 145 150 155 160
 Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
 165 170 175
 Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
 180 185 190
 Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
 195 200 205
 Ser Phe Asn Arg Gly Glu Cys
 210 215

<210> 395

<211> 215

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 395

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
 20 25 30

4358741_1

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 396

<211> 215

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 396

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

4358741_1

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 397

<211> 215

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 397

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

4358741_1

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 398

<211> 215

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 398

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

4358741_1

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Gln Glu
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 399
<211> 215
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 399
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Tyr Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

4358741_1

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Gln Glu
65 70 75 80

Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 400

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 400

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

4358741_1

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 401

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 401

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

4358741_1

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 402

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 402

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

4358741_1

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 403

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 403

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

4358741_1

Tyr Tyr Ser Thr₁₀₀ Pro Trp Thr Phe Gly₁₀₅ Gln Gly Thr Lys Val₁₁₀ Glu Ile

Lys Arg Thr₁₁₅ Val Ala Ala Pro Ser₁₂₀ Val Phe Ile Phe Pro₁₂₅ Pro Ser Asp

Glu Gln₁₃₀ Leu Lys Ser Gly Thr₁₃₅ Ala Ser Val Val Cys₁₄₀ Leu Leu Asn Asn

Phe Tyr Pro Arg Glu₁₄₅ Ala₁₅₀ Lys Val Gln Trp Lys₁₅₅ Val Asp Asn Ala₁₆₀ Leu

Gln Ser Gly Asn Ser₁₆₅ Gln Glu Ser Val Thr₁₇₀ Glu Gln Asp Ser Lys₁₇₅ Asp

Ser Thr Tyr Ser₁₈₀ Leu Ser Ser Thr Leu₁₈₅ Thr Leu Ser Lys Ala₁₉₀ Asp Tyr

Glu Lys His₁₉₅ Lys Val Tyr Ala Cys₂₀₀ Glu Val Thr His Gln₂₀₅ Gly Leu Ser

Ser Pro Val Thr Lys Ser Phe₂₁₀ Asn Arg Gly Glu Cys₂₂₀

<210> 404

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 404

Asp Ile Val Met Thr₅ Gln Ser Pro Asp Ser₁₀ Leu Ala Val Ser Leu₁₅ Gly

Glu Arg Ala Thr₂₀ Ile Asn Cys Lys Ser₂₅ Ser Gln Ser Val Leu₃₀ Ser Ser

Ser Asn Asn₃₅ Lys Asn Tyr Ile Ala₄₀ Trp Tyr Gln Gln Gln₄₅ Pro Gly His

Pro Pro Lys Leu Leu Ile Tyr₅₅ Trp Ala Ser Thr Arg₆₀ Glu Ser Gly Val

Pro Asp Arg Phe Ser Gly₇₀ Ser Gly Ser Gly Thr₇₅ Asp Phe Thr Leu Thr₈₀

Ile Ser Ser Leu Gln₈₅ Ala Glu Asp Val Ala₉₀ Val Phe Tyr Cys Gln₉₅ Gln

Tyr Tyr Ser Thr₁₀₀ Pro Trp Thr Phe Gly₁₀₅ Gln Gly Thr Lys Val₁₁₀ Glu Ile

4358741_1

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 405

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 405

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

4358741_1

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 406

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 406

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

4358741_1

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 407

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 407

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

4358741_1

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 408

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 408

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Gln Pro Gly His
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

4358741_1

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 409

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 409

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

4358741_1

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 410

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 410

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

4358741_1

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 411

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 411

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

4358741_1

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 412

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 412

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

4358741_1

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 413

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 413

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

4358741_1

Ser Thr Tyr Ser₁₈₀ Leu Ser Ser Thr Leu₁₈₅ Thr Leu Ser Lys Ala₁₉₀ Asp Tyr

Glu Lys His₁₉₅ Lys Val Tyr Ala Cys₂₀₀ Glu Val Thr His Gln₂₀₅ Gly Leu Ser

Ser Pro₂₁₀ Val Thr Lys Ser Phe₂₁₅ Asn Arg Gly Glu Cys₂₂₀

<210> 414

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 414

Asp Ile Val Met₅ Thr Gln Ser Pro Asp Ser₁₀ Leu Ser Val Ser Leu₁₅ Gly

Glu Arg Ala Thr₂₀ Ile Asn Cys Lys Ser₂₅ Ser Gln Ser Val Leu₃₀ Ser Ser

Ser Asn Asn₃₅ Lys Asn Tyr Leu Ala₄₀ Trp Tyr Gln Gln Lys₄₅ Pro Gly Gln

Pro Pro₅₀ Asn Leu Leu Ile Tyr₅₅ Trp Thr Ser Thr Arg₆₀ Glu Ser Gly Val

Pro Asp Arg Phe Ser Gly₇₀ Ser Gly Ser Gly Thr₇₅ Asp Phe Thr Leu Thr₈₀

Ile Asn Ser Leu Gln₈₅ Ala Glu Asp Val Ala₉₀ Val Tyr Tyr Cys Gln₉₅ Gln

Tyr Tyr Arg Thr₁₀₀ Pro Trp Thr Phe Gly₁₀₅ Gln Gly Thr Lys Val₁₁₀ Glu Ile

Lys Arg Thr₁₁₅ Val Ala Ala Pro Ser₁₂₀ Val Phe Ile Phe Pro₁₂₅ Pro Ser Asp

Glu Gln Leu Lys Ser Gly Thr₁₃₅ Ala Ser Val Val Cys₁₄₀ Leu Leu Asn Asn

Phe Tyr Pro Arg Glu Ala₁₅₀ Lys Val Gln Trp Lys₁₅₅ Val Asp Asn Ala Leu₁₆₀

Gln Ser Gly Asn Ser₁₆₅ Gln Glu Ser Val Thr₁₇₀ Glu Gln Asp Ser Lys₁₇₅ Asp

Ser Thr Tyr Ser₁₈₀ Leu Ser Ser Thr Leu₁₈₅ Thr Leu Ser Lys Ala₁₉₀ Asp Tyr

4358741_1

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 415

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 415

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

4358741_1

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 416

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 416

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

4358741_1

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 417
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 417
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

4358741_1

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 418

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 418

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 419
 <211> 220
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 419
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160
 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175
 Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190
 Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205
 Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

4358741_1

<210> 420

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 420

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly His
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 421

<211> 220

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 421

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly His
35 40 45Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 422

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 422

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly His
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 423

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 423

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 424

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 424

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Phe Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210 215 220

<210> 425

<211> 220

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 425

4358741_1

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 426

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 426

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

4358741_1

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 427

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 427

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

4358741_1

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 428

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 428

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

4358741_1

Ser Asn Asn₃₅ Lys Asn Tyr Leu Ala₄₀ Trp Tyr Gln Gln Lys₄₅ Pro Gly Gln
Pro Pro₅₀ Asn Leu Leu Ile Tyr₅₅ Trp Thr Ser Thr Arg₆₀ Asp Ser Gly Val
Pro Asp Arg Phe Ser Gly₇₀ Ser Gly Ser Gly Thr₇₅ Asp Phe Thr Leu Thr₈₀
Ile Asn Ser Leu Gln₈₅ Ala Glu Asp Val Ala₉₀ Val Tyr Tyr Cys Gln₉₅ Gln
Tyr Tyr Arg Thr₁₀₀ Pro Trp Thr Phe Gly₁₀₅ Gln Gly Thr Lys Val₁₁₀ Glu Ile
Lys Arg Thr₁₁₅ Val Ala Ala Pro Ser₁₂₀ Val Phe Ile Phe Pro₁₂₅ Pro Ser Asp
Glu Gln₁₃₀ Leu Lys Ser Gly Thr₁₃₅ Ala Ser Val Val Cys₁₄₀ Leu Leu Asn Asn
Phe Tyr Pro Arg Glu Ala₁₅₀ Lys Val Gln Trp Lys₁₅₅ Val Asp Asn Ala Leu₁₆₀
Gln Ser Gly Asn Ser₁₆₅ Gln Glu Ser Val Thr₁₇₀ Glu Gln Asp Ser Lys₁₇₅ Asp
Ser Thr Tyr Ser₁₈₀ Leu Ser Ser Thr Leu₁₈₅ Thr Leu Ser Lys Ala₁₉₀ Asp Tyr
Glu Lys His₁₉₅ Lys Val Tyr Ala Cys₂₀₀ Glu Val Thr His Gln₂₀₅ Gly Leu Ser
Ser Pro Val Thr Lys Ser Phe₂₁₅ Asn Arg Gly Glu Cys₂₂₀

<210> 429

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 429

Asp Ile Val Met Thr₅ Gln Ser Pro Asp Ser₁₀ Leu Ser Val Ser₁₅ Leu Gly

Glu Arg Ala Thr₂₀ Ile Asn Cys Lys Ser₂₅ Ser Gln Ser Val₃₀ Leu Ser Ser

4358741_1

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 430

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 430

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

4358741_1

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 431

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 431

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

4358741_1

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 432

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 432

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

4358741_1

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 433

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 433

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

4358741_1

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 434

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 434

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

4358741_1

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 435

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 435

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ser Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Asn Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

4358741_1

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 436

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 436

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

4358741_1

Tyr Tyr Arg Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 437

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 437

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Ser Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

4358741_1

Tyr Tyr Arg Thr₁₀₀ Pro Trp Thr Phe Gly₁₀₅ Gln Gly Thr Lys Val₁₁₀ Glu Ile

Lys Arg Thr₁₁₅ Val Ala Ala Pro Ser₁₂₀ Val Phe Ile Phe Pro₁₂₅ Pro Ser Asp

Glu Gln₁₃₀ Leu Lys Ser Gly Thr₁₃₅ Ala Ser Val Val Cys₁₄₀ Leu Leu Asn Asn

Phe Tyr Pro Arg Glu₁₄₅ Ala₁₅₀ Lys Val Gln Trp Lys₁₅₅ Val Asp Asn Ala₁₆₀ Leu

Gln Ser Gly Asn Ser₁₆₅ Gln Glu Ser Val Thr₁₇₀ Glu Gln Asp Ser Lys₁₇₅ Asp

Ser Thr Tyr Ser₁₈₀ Leu Ser Ser Thr Leu₁₈₅ Thr Leu Ser Lys Ala₁₉₀ Asp Tyr

Glu Lys His₁₉₅ Lys Val Tyr Ala Cys₂₀₀ Glu Val Thr His Gln₂₀₅ Gly Leu Ser

Ser Pro Val Thr Lys Ser Phe₂₁₀ Asn Arg Gly Glu Cys₂₂₀

<210> 438

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 438

Gln Ser Val Leu₅ Thr Gln Pro Pro Ser Ala₁₀ Ser Gly Thr Pro Gly₁₅ Gln

Arg Val Thr Ile₂₀ Ser Cys Ser Gly Ser₂₅ Ser Ser Asn Ile Gly₃₀ Ser Gln

Thr Val Asn Trp Tyr Gln His Leu₃₅ Pro Gly Thr Ala₄₀ Pro Lys Leu Leu

Ile Tyr Thr Asn Asn Gln Arg₅₅ Pro Ser Gly Val Pro₆₀ Asp Arg Phe Ser

Gly Ser Lys Ser Gly Thr₇₀ Ser Ala Ser Leu Ala₇₅ Ile Ser Gly Leu Gln₈₀

Ser Glu Asp Glu Ala₈₅ Asp Tyr Phe Cys Ala₉₀ Thr Phe Asp Glu Ser₉₅ Leu

Ser Gly Pro Val₁₀₀ Phe Gly Gly Gly Thr₁₀₅ Lys Leu Thr Val Leu₁₁₀ Gly Gln

4358741_1

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> 439

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 439

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln
20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Glu Ser Leu
85 90 95

Gln Gly Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110

4358741_1

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> 440

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 440

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Glu Ser Leu
85 90 95

Ser Gly Pro 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

4358741_1

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> 441

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 441

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Glu Ser Leu
85 90 95

Gln Gly Pro 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

4358741_1

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> 442

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 442

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln
 20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
 65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Asp Ser Leu
 85 90 95

Asn Gly Pro 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

4358741_1

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> 443

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 443

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Asp Ser Leu
85 90 95

Asn Gly Pro 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

4358741_1

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> 444

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 444

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Glu Ser Leu
85 90 95

Asn Gly Pro 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

4358741_1

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> 445

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 445

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Asp Ser Leu
85 90 95

Gln Gly Pro 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

4358741_1

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> 446

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 446

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
 20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
 65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Asp Ser Leu
 85 90 95

Ser Gly Pro 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

4358741_1

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> 447

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 447

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Asp Ser Leu
85 90 95

Asn Ala Pro 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

4358741_1

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> 448

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 448

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
 20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
 65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Ser Ser Leu
 85 90 95

Asn Gly Pro 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

4358741_1

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> 449

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 449

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Ser Ser Leu
85 90 95

Asn Ala Pro 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

4358741_1

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> 450

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 450

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30

Tyr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Ser Ser Leu
85 90 95

Asn Ala Pro 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

4358741_1

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 451

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 451

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln
20 25 30

Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Glu Ser Leu
85 90 95

Ser Gly Pro 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

4358741_1

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 452

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 452

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Leu Arg Asn Tyr
20 25 30

Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45

Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

4358741_1

<210> 453
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 453
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asp Tyr
 20 25 30
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
 35 40 45
 Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Phe
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

4358741_1

<210> 454

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 454

Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80Ser Glu Asp Glu Ala Asp Tyr Phe Cys Ala Thr Phe Asp Ser Ser Leu
85 90 95Ser Gly Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
100 105 110Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys
145 150 155 160Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr
165 170 175Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 455

<211> 214

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 455

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Thr Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 456

<211> 216

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 456

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Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1      5      10     15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
      20     25     30

Tyr Val Ser Trp Tyr Glu Gln Phe Pro Gly Thr Ala Pro Lys Leu Leu
      35     40     45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
      50     55     60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65     70     75     80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
      85     90     95

Ser Ala Val 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

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> 457

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 457

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 458

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 458

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
 35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
 85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
 210

<210> 459

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 459

4358741_1

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Thr Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 460

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 460

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

4358741_1

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 461
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 461
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

4358741_1

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
 35 40 45
 Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
 85 90 95
 Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

<210> 462

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 462

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
 20 25 30

4358741_1

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Ile
85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 463
<211> 216
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 463
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

4358741_1

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
85 90 95

Ser Ala Val 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> 464

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 464

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

4358741_1

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
85 90 95

Ser Ala Val 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> 465

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 465

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Glu Gln Phe Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

4358741_1

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
85 90 95

Ser Ala Val 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> 466

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 466

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

4358741_1

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Phe Glu Ser Ser Leu
85 90 95

Ser Ala Val 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> 467

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 467

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

4358741_1

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
85 90 95

Ser Ala Val 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> 468

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 468

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

4358741_1

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
85 90 95

Ser Ala Val 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> 469

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 469

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
65 70 75 80

4358741_1

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
85 90 95

Ser Ala Val 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> 470

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 470

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Phe Glu Ser Ser Leu
85 90 95

4358741_1

Ser Ala Val 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> 471

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 471

Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Arg Phe
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Leu
85 90 95

4358741_1

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 472

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 472

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

4358741_1

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380

4358741_1

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 473

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 473

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn 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 His Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

4358741_1

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

4358741_1

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 474

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 474

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

4358741_1

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445
 Pro Gly Lys
 450

4358741_1

<210> 475
 <211> 450
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 475
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220

4358741_1

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 476

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 476

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

4358741_1

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 477

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 477

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

4358741_1

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60
 Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

4358741_1

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 478

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 478

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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Met Glu Leu Ser Arg₈₅ Leu Arg Ser Asp₉₀ Thr Ala Val Tyr Phe₉₅ Cys
 Thr Arg Glu Ala₁₀₀ Thr Ile Phe Gly₁₀₅ Leu Ile Val Pro Phe₁₁₀ Asp Tyr
 Trp Gly Gln₁₁₅ Gly Thr Leu Val Thr₁₂₀ Val Ser Ser Ala Ser₁₂₅ Thr Lys Gly
 Pro Ser₁₃₀ Val Phe Pro Leu Ala₁₃₅ Pro Ser Ser Lys Ser₁₄₀ Thr Ser Gly Gly
 Thr₁₄₅ Ala Ala Leu Gly Cys₁₅₀ Leu Val Lys Asp Tyr₁₅₅ Phe Pro Glu Pro Val₁₆₀
 Thr Val Ser Trp Asn₁₆₅ Ser Gly Ala Leu Thr₁₇₀ Ser Gly Val His Thr₁₇₅ Phe
 Pro Ala Val Leu₁₈₀ Gln Ser Ser Gly Leu₁₈₅ Tyr Ser Leu Ser Ser₁₉₀ Val Val
 Thr Val Pro₁₉₅ Ser Ser Ser Leu Gly₂₀₀ Thr Gln Thr Tyr Ile₂₀₅ Cys Asn Val
 Asn His₂₁₀ Lys Pro Ser Asn Thr₂₁₅ Lys Val Asp Lys Lys₂₂₀ Val Glu Pro Lys
 Ser₂₂₅ Cys Asp Lys Thr His₂₃₀ Thr Cys Pro Pro Cys₂₃₅ Pro Ala Pro Glu Leu₂₄₀
 Leu Gly Gly Pro Ser₂₄₅ Val Phe Leu Phe Pro₂₅₀ Pro Lys Pro Lys Asp₂₅₅ Thr
 Leu Met Ile Ser₂₆₀ Arg Thr Pro Glu Val₂₆₅ Thr Cys Val Val Val₂₇₀ Asp Val
 Ser His Glu₂₇₅ Asp Pro Glu Val Lys₂₈₀ Phe Asn Trp Tyr Val₂₈₅ Asp Gly Val
 Glu Val₂₉₀ His Asn Ala Lys Thr₂₉₅ Lys Pro Cys Glu Glu₃₀₀ Gln Tyr Gly Ser
 Thr₃₀₅ Tyr Arg Cys Val Ser₃₁₀ Val Leu Thr Val Leu₃₁₅ His Gln Asp Trp Leu₃₂₀
 Asn Gly Lys Glu Tyr₃₂₅ Lys Cys Lys Val Ser₃₃₀ Asn Lys Ala Leu Pro₃₃₅ Ala
 Pro Ile Glu Lys₃₄₀ Thr Ile Ser Lys Ala₃₄₅ Lys Gly Gln Pro Arg₃₅₀ Glu Pro

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Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 479
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 479
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

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Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 480

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 480

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
115 120 125

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
130 135 140

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
145 150 155 160

4358741_1

Glu Pro Val Thr Val₁₆₅ Ser Trp Asn Ser Gly₁₇₀ Ala Leu Thr Ser Gly₁₇₅ Val
 His Thr Phe Pro₁₈₀ Ala Val Leu Gln Ser₁₈₅ Ser Gly Leu Tyr Ser₁₉₀ Leu Ser
 Ser Val Val₁₉₅ Thr Val Pro Ser Ser₂₀₀ Ser Leu Gly Thr Gln₂₀₅ Thr Tyr Ile
 Cys Asn₂₁₀ Val Asn His Lys Pro₂₁₅ Ser Asn Thr Lys Val₂₂₀ Asp Lys Lys Val
 Glu₂₂₅ Pro Lys Ser Cys Asp₂₃₀ Lys Thr His Thr Cys₂₃₅ Pro Pro Cys Pro Ala₂₄₀
 Pro Glu Leu Leu Gly₂₄₅ Gly Pro Ser Val Phe₂₅₀ Leu Phe Pro Pro Lys₂₅₅ Pro
 Lys Asp Thr Leu₂₆₀ Met Ile Ser Arg Thr₂₆₅ Pro Glu Val Thr Cys₂₇₀ Val Val
 Val Asp Val₂₇₅ Ser His Glu Asp Pro₂₈₀ Glu Val Lys Phe Asn₂₈₅ Trp Tyr Val
 Asp Gly₂₉₀ Val Glu Val His Asn₂₉₅ Ala Lys Thr Lys Pro₃₀₀ Cys Glu Glu Gln
 Tyr₃₀₅ Gly Ser Thr Tyr Arg₃₁₀ Cys Val Ser Val Leu₃₁₅ Thr Val Leu His Gln₃₂₀
 Asp Trp Leu Asn Gly₃₂₅ Lys Glu Tyr Lys Cys₃₃₀ Lys Val Ser Asn Lys₃₃₅ Ala
 Leu Pro Ala Pro₃₄₀ Ile Glu Lys Thr Ile₃₄₅ Ser Lys Ala Lys Gly₃₅₀ Gln Pro
 Arg Glu Pro₃₅₅ Gln Val Tyr Thr Leu₃₆₀ Pro Pro Ser Arg Glu₃₆₅ Glu Met Thr
 Lys Asn₃₇₀ Gln Val Ser Leu Thr₃₇₅ Cys Leu Val Lys Gly₃₈₀ Phe Tyr Pro Ser
 Asp₃₈₅ Ile Ala Val Glu Trp₃₉₀ Glu Ser Asn Gly Gln₃₉₅ Pro Glu Asn Asn Tyr₄₀₀
 Lys Thr Thr Pro₄₀₅ Pro Val Leu Asp Ser Asp₄₁₀ Gly Ser Phe Phe Leu₄₁₅ Tyr
 Ser Lys Leu Thr₄₂₀ Val Asp Lys Ser Arg₄₂₅ Trp Gln Gln Gly Asn₄₃₀ Val Phe

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Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
435 440 445

Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 481

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 481

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Gly Ser Asp Lys 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

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Ser Ser Ser₁₉₅ Leu Gly Thr Gln Thr₂₀₀ Tyr Ile Cys Asn Val₂₀₅ Asn His Lys
 Pro Ser₂₁₀ Asn Thr Lys Val Asp₂₁₅ Lys Lys Val Glu Pro₂₂₀ Lys Ser Cys Asp
 Lys₂₂₅ Thr His Thr Cys Pro₂₃₀ Pro Cys Pro Ala Pro₂₃₅ Glu Leu Leu Gly Gly₂₄₀
 Pro Ser Val Phe Leu₂₄₅ Phe Pro Pro Lys Pro₂₅₀ Lys Asp Thr Leu Met₂₅₅ Ile
 Ser Arg Thr Pro₂₆₀ Glu Val Thr Cys Val₂₆₅ Val Val Asp Val Ser₂₇₀ His Glu
 Asp Pro Glu₂₇₅ Val Lys Phe Asn Trp₂₈₀ Tyr Val Asp Gly Val₂₈₅ Glu Val His
 Asn Ala₂₉₀ Lys Thr Lys Pro Cys₂₉₅ Glu Glu Gln Tyr Gly₃₀₀ Ser Thr Tyr Arg
 Cys₃₀₅ Val Ser Val Leu Thr₃₁₀ Val Leu His Gln Asp₃₁₅ Trp Leu Asn Gly Lys₃₂₀
 Glu Tyr Lys Cys Lys₃₂₅ Val Ser Asn Lys Ala₃₃₀ Leu Pro Ala Pro Ile₃₃₅ Glu
 Lys Thr Ile Ser₃₄₀ Lys Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr
 Thr Leu Pro₃₅₅ Pro Ser Arg Glu Glu₃₆₀ Met Thr Lys Asn Gln₃₆₅ Val Ser Leu
 Thr Cys₃₇₀ Leu Val Lys Gly Phe₃₇₅ Tyr Pro Ser Asp Ile₃₈₀ Ala Val Glu Trp
 Glu₃₈₅ Ser Asn Gly Gln Pro₃₉₀ Glu Asn Asn Tyr Lys₃₉₅ Thr Thr Pro Pro Val₄₀₀
 Leu Asp Ser Asp Gly₄₀₅ Ser Phe Phe Leu Tyr₄₁₀ Ser Lys Leu Thr Val₄₁₅ Asp
 Lys Ser Arg Trp₄₂₀ Gln Gln Gly Asn Val₄₂₅ Phe Ser Cys Ser Val₄₃₀ Met His
 Glu Ala Leu₄₃₅ His Asn His Tyr Thr₄₄₀ Gln Lys Ser Leu Ser₄₄₅ Leu Ser Pro
 Gly Lys₄₅₀

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<210> 482

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 482

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

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Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
 Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
 Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu
 Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
 Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val
 Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met
 His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser
 Pro Gly Lys₄₅₀

<210> 483

<211> 450

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 483

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Ala Ile Trp Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270

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Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 484

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 484

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gln Gly Ser Ile Ser Ser Tyr
20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Ala Gly Lys Gly Leu Glu Trp Ile
35 40 45

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Gly Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Met Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg Asp Val Ala Val Ala Gly 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 Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys 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

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Cys Lys Val Ser Asn₃₂₅ Lys Ala Leu Pro Ala₃₃₀ Pro Ile Glu Lys Thr₃₃₅ Ile

Ser Lys Ala Lys₃₄₀ Gly Gln Pro Arg Glu₃₄₅ Pro Gln Val Tyr Thr₃₅₀ Leu Pro

Pro Ser Arg₃₅₅ Glu Glu Met Thr Lys₃₆₀ Asn Gln Val Ser Leu₃₆₅ Thr Cys Leu

Val Lys₃₇₀ Gly Phe Tyr Pro Ser₃₇₅ Asp Ile Ala Val Glu₃₈₀ Trp Glu Ser Asn

Gly₃₈₅ Gln Pro Glu Asn₃₉₀ Asn Tyr Lys Thr Thr Pro₃₉₅ Pro Val Leu Asp Ser₄₀₀

Asp Gly Ser Phe Phe₄₀₅ Leu Tyr Ser Lys Leu₄₁₀ Thr Val Asp Lys Ser₄₁₅ Arg

Trp Gln Gln Gly₄₂₀ Asn Val Phe Ser Cys₄₂₅ Ser Val Met His Glu₄₃₀ Ala Leu

His Asn His₄₃₅ Tyr Thr Gln Lys Ser₄₄₀ Leu Ser Leu Ser Pro₄₄₅ Gly Lys

<210> 485

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 485

Gln Val Gln Leu Gln₅ Glu Ser Gly Pro Gly₁₀ Leu Val Lys Pro Ser₁₅ Glu

Thr Leu Ser Leu₂₀ Thr Cys Thr Val Ser₂₅ Gly Gly Ser Ile Ser₃₀ Ser Tyr

Tyr Trp Ser₃₅ Trp Ile Arg Gln Pro₄₀ Ala Gly Lys Gly₄₅ Leu Glu Trp Ile

Gly Arg Ile Tyr Thr Ser Gly₅₅ Ser Thr Asn Tyr Asn₆₀ Pro Ser Leu Lys

Ser Arg Val Thr Met Ser₇₀ Ile Asp Thr Ser Lys₇₅ Asn Gln Phe Ser Leu₈₀

Lys Leu Asn Ser Val₈₅ Thr Ala Ala Asp Thr₉₀ Ala Val Tyr Tyr Cys₉₅ Ala

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Arg Asp Val Ala Val Ala Gly 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 Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys 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 Glu Glu Met 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 4358741_1

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> 486

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 486

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160

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Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

4358741_1

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 487

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 487

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

4358741_1

Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
 Lys Pro₂₁₀ Ser Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
 Asp₂₂₅ Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
 Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
 Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
 Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp Ile Ala Val Glu
 Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
 Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr Val₄₁₅
 Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser Val Met
 His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser
 Pro Gly₄₅₀ Lys

4358741_1

<210> 488

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 488

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

4358741_1

Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
 Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
 Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu
 Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
 Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val
 Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met
 His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser
 Pro Gly Lys₄₅₀

<210> 489

<211> 451

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 489

4358741_1

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

4358741_1

Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val

His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr

Arg Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀

Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile

Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val

Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly Lys₄₅₀

<210> 490

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 490

Gln Val Gln Leu₅ Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala Ser₂₅ Gly Phe Thr Phe Ser₃₀ Tyr Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly Leu₄₅ Glu Trp Val

4358741_1

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

4358741_1

Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala₃₃₅ Pro Ile

Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu₃₅₀ Pro Gln Val

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp₃₈₅ Glu Ser Asn Gly₃₉₀ Gln Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val

Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys₄₃₀ Ser Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly₄₅₀ Lys

<210> 491

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 491

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg₂₀ Leu Ser Cys Ala Ala₂₅ Ser Gly Phe Thr Phe₃₀ Ser Tyr Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val₅₀ Ile Trp Tyr Asp Ala₅₅ Ser Asn Lys Tyr₆₀ Tyr Ala Asp Ala Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn₇₅ Ser Lys Asn Thr Leu₈₀ Tyr

4358741_1

Leu Gln Met Asn Ser₈₅ Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Asp Arg₁₀₀ Thr Ile Phe Gly Val₁₀₅ Leu Leu Gly Asp Tyr₁₁₀ Trp Gly
 Gln Gly Thr₁₁₅ Leu Val Thr Val Ser₁₂₀ Ser Ala Ser Thr Lys₁₂₅ Gly Pro Ser
 Val Phe₁₃₀ Pro Leu Ala Pro Ser₁₃₅ Ser Lys Ser Thr Ser₁₄₀ Gly Gly Thr Ala
 Ala₁₄₅ Leu Gly Cys Leu Val₁₅₀ Lys Asp Tyr Phe Pro₁₅₅ Glu Pro Val Thr Val₁₆₀
 Ser Trp Asn Ser Gly₁₆₅ Ala Leu Thr Ser Gly₁₇₀ Val His Thr Phe Pro₁₇₅ Ala
 Val Leu Gln Ser₁₈₀ Ser Gly Leu Tyr Ser₁₈₅ Leu Ser Ser Val Val₁₉₀ Thr Val
 Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
 Lys Pro₂₁₀ Ser Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
 Asp₂₂₅ Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
 Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val

4358741_1

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu₄₁₅ Thr Val

Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly Lys₄₅₀

<210> 492

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 492

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Gly Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg₂₀ Leu Ser Cys Ala Ala₂₅ Ser Gly Phe Thr Phe₃₀ Ser Asn Phe

Gly Met His₃₅ Trp Val Arg Gln₄₀ Ala Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val Ile Trp Tyr Asp₅₅ Ala Ser Asn Glu Asn₆₀ Tyr Ala Asp Ala Val

Lys Gly Arg Phe Thr₇₀ Ile Ser Arg Asp Asn₇₅ Ser Lys Asn Thr Leu₈₀ Tyr

Leu Gln Met Asn₈₅ Ser Leu Arg Val Ala₉₀ Asp Thr Ala Val Tyr₉₅ Tyr Cys

Ala Arg Asp Gly₁₀₀ Thr Ile Phe Gly₁₀₅ Val Val Leu Gly Asp₁₁₀ Tyr Trp Gly

Gln Gly Thr₁₁₅ Leu Val Thr Val Ser₁₂₀ Ser Ala Ser Thr Lys₁₂₅ Gly Pro Ser

4358741_1

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

4358741_1

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 493

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 493

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

4358741_1

Ser Trp Asn Ser Gly₁₆₅ Ala Leu Thr Ser Gly₁₇₀ Val His Thr Phe Pro₁₇₅ Ala
Val Leu Gln Ser₁₈₀ Ser Gly Leu Tyr Ser₁₈₅ Leu Ser Ser Val Val₁₉₀ Thr Val
Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
Lys Pro₂₁₀ Ser Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
Asp₂₂₅ Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu
Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val
Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

4358741_1

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
 450

<210> 494

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 494

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Val Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205

4358741_1

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445
 Pro Gly Lys
 450

<210> 495

<211> 451

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 495

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ser Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu His Met Asn Ser Leu Arg Val Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

4358741_1

Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met

Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His

Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val

His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr

Arg Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀

Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile

Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val

Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly Lys₄₅₀

<210> 496

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 496

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala Ser₂₅ Gly Phe Thr Phe Ser₃₀ Asn Phe
 Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly Leu₄₅ Glu Trp Val
 Ala Val Ile Trp Tyr Asp Gly₅₅ Ser Asn Glu Asn Tyr₆₀ Ala Asp Ala Val
 Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn Ser₇₅ Lys Asn Thr Leu Tyr₈₀
 Leu His Met Asn Ser₈₅ Leu Arg Val Ala Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Asp Gly₁₀₀ Thr Ile Phe Gly Val₁₀₅ Val Leu Gly Asp Tyr₁₁₀ Trp Gly
 Gln Gly Thr₁₁₅ Leu Val Thr Val Ser₁₂₀ Ser Ala Ser Thr Lys₁₂₅ Gly Pro Ser
 Val Phe₁₃₀ Pro Leu Ala Pro Ser₁₃₅ Ser Lys Ser Thr Ser₁₄₀ Gly Gly Thr Ala
 Ala Leu Gly Cys Leu Val₁₅₀ Lys Asp Tyr Phe Pro₁₅₅ Glu Pro Val Thr Val₁₆₀
 Ser Trp Asn Ser Gly₁₆₅ Ala Leu Thr Ser Gly₁₇₀ Val His Thr Phe Pro₁₇₅ Ala
 Val Leu Gln Ser₁₈₀ Ser Gly Leu Tyr Ser₁₈₅ Leu Ser Ser Val Val₁₉₀ Thr Val
 Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
 Lys Pro Ser₂₁₀ Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
 Asp Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
 Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu Met₂₅₅
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val

4358741_1

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 497

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 497

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

4358741_1

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Val Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

4358741_1

Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile

Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val

Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly₄₅₀ Lys

<210> 498

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 498

Gln Val Gln Leu Val₅ Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala Ser₂₅ Gly Phe Thr Phe Ser₃₀ Asn Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly Leu₄₅ Glu Trp Val

Ala Val₅₀ Ile Trp Tyr Asp Ala₅₅ Ser Asn Glu Asn Tyr₆₀ Ala Asp Ala Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn Ser₇₅ Lys Asn Thr Leu Tyr₈₀

Leu Gln Met Asn Ser₈₅ Leu Arg Val Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

4358741_1

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

4358741_1

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 499

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 499

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn 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 His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

4358741_1

Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala
	130					135					140				
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val
145					150					155					160
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala
				165					170					175	
Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val
			180					185					190		
Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His
		195					200					205			
Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser	Cys
	210					215					220				
Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly
225					230					235					240
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met
				245					250					255	
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His
			260					265					270		
Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val
		275					280					285			
His	Asn	Ala	Lys	Thr	Lys	Pro	Cys	Glu	Glu	Gln	Tyr	Gly	Ser	Thr	Tyr
	290					295					300				
Arg	Cys	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly
305					310					315					320
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile
				325					330					335	
Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val
			340					345					350		
Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser
		355					360					365			
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu
	370					375					380				
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro
385					390					395					400

4358741_1

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 500

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 500

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

4358741_1

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

4358741_1

Pro Gly Lys
450

<210> 501
<211> 451
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 501
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

4358741_1

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 502

<211> 451

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 502

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

4358741_1

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430 435

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 503

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 503

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

4358741_1

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
 450

<210> 504

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 504

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val
 50 55 60

4358741_1

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335

4358741_1

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
 450

<210> 505

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 505

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 His Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

4358741_1

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
 450

<210> 506

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 506

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140

4358741_1

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

4358741_1

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 507

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 507

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn Tyr Ala Asp Ala 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

4358741_1

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
450

<210> 508
<211> 451
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 508
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn 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 Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

4358741_1

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445
 Pro Gly Lys
 450

<210> 509
 <211> 451
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 509

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Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1          5          10          15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
          20          25          30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35          40          45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
          100          105          110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
          115          120          125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
          130          135          140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145          150          155          160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
          165          170          175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
          180          185          190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
          195          200          205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210          215          220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225          230          235          240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
          245          250          255

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4358741_1

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 510

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 510

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Phe
20 25 30

4358741_1

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300

4358741_1

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 511

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 511

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

4358741_1

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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335

4358741_1

Lys Thr Ile Ser₃₄₀ Lys Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr

Thr Leu Pro₃₅₅ Pro Ser Arg Glu Glu₃₆₀ Met Thr Lys Asn Gln₃₆₅ Val Ser Leu

Thr Cys₃₇₀ Leu Val Lys Gly Phe₃₇₅ Tyr Pro Ser Asp Ile₃₈₀ Ala Val Glu Trp

Glu Ser Asn Gly Gln₃₉₀ Glu Asn Asn Tyr Lys₃₉₅ Thr Thr Pro Pro Val₄₀₀

Leu Asp Ser Asp Gly₄₀₅ Ser Phe Phe Leu Tyr₄₁₀ Ser Lys Leu Thr Val₄₁₅ Asp

Lys Ser Arg Trp₄₂₀ Gln Gln Gly Asn Val₄₂₅ Phe Ser Cys Ser Val₄₃₀ Met His

Glu Ala Leu₄₃₅ His Asn His Tyr Thr₄₄₀ Gln Lys Ser Leu Ser₄₄₅ Leu Ser Pro

Gly Lys₄₅₀

<210> 512

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 512

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala₂₅ Ser Gly Phe Thr Phe₃₀ Ser Ser Tyr

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val Ile Trp Tyr Asp Ala₅₅ Ser Asn Lys Tyr Tyr₆₀ Ala Asp Ala Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Ser Asp Asn₇₅ Ser Lys Asn Thr Leu Tyr₈₀

Leu Gln Met Asn₈₅ Ser Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

Ala Arg Asp Arg₁₀₀ Thr Ile Phe Gly Val₁₀₅ Val Leu Asp Tyr Trp₁₁₀ Gly Gln

4358741_1

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

4358741_1

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 513

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 513

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

4358741_1

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

4358741_1

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 514

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 514

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190

4358741_1

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445
 Gly Lys
 450

4358741_1

<210> 515
 <211> 450
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 515
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220

4358741_1

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 516

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 516

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Ser 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

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Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 517

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 517

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

4358741_1

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300

4358741_1

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 518

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 518

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys 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

4358741_1

Leu Gln Met Asn Ser₈₅ Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Asp Arg₁₀₀ Thr Ile Phe Gly Val₁₀₅ Val Leu Asp Tyr Trp₁₁₀ Gly Gln
 Gly Thr Leu₁₁₅ Val Thr Val Ser Ser₁₂₀ Ala Ser Thr Lys Gly₁₂₅ Pro Ser Val
 Phe Pro₁₃₀ Leu Ala Pro Ser Ser₁₃₅ Lys Ser Thr Ser Gly₁₄₀ Gly Thr Ala Ala
 Leu Gly Cys Leu Val Lys₁₅₀ Asp Tyr Phe Pro Glu₁₅₅ Pro Val Thr Val Ser₁₆₀
 Trp Asn Ser Gly Ala₁₆₅ Leu Thr Ser Gly Val₁₇₀ His Thr Phe Pro Ala₁₇₅ Val
 Leu Gln Ser Ser₁₈₀ Gly Leu Tyr Ser Leu₁₈₅ Ser Ser Val Val Thr₁₉₀ Val Pro
 Ser Ser Ser₁₉₅ Leu Gly Thr Gln Thr₂₀₀ Tyr Ile Cys Asn Val₂₀₅ Asn His Lys
 Pro Ser₂₁₀ Asn Thr Lys Val Asp₂₁₅ Lys Lys Val Glu Pro₂₂₀ Lys Ser Cys Asp
 Lys Thr His Thr Cys Pro₂₃₀ Pro Cys Pro Ala Pro₂₃₅ Glu Leu Leu Gly Gly₂₄₀
 Pro Ser Val Phe Leu₂₄₅ Phe Pro Pro Lys Pro₂₅₀ Lys Asp Thr Leu Met₂₅₅ Ile
 Ser Arg Thr Pro₂₆₀ Glu Val Thr Cys Val₂₆₅ Val Val Asp Val Ser₂₇₀ His Glu
 Asp Pro Glu Val Lys Phe Asn Trp₂₈₀ Tyr Val Asp Gly Val₂₈₅ Glu Val His
 Asn Ala Lys Thr Lys Pro Cys₂₉₅ Glu Glu Gln Tyr Gly₃₀₀ Ser Thr Tyr Arg
 Cys Val Ser Val Leu Thr₃₁₀ Val Leu His Gln Asp₃₁₅ Trp Leu Asn Gly Lys₃₂₀
 Glu Tyr Lys Cys Lys₃₂₅ Val Ser Asn Lys Ala Leu Pro Ala Pro Ile₃₃₅ Glu
 Lys Thr Ile Ser₃₄₀ Lys Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr

4358741_1

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 519

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 519

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Val Leu Asp Tyr Trp Gly Gln
100 105 110

4358741_1

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

4358741_1

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 520

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 520

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

4358741_1

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

4358741_1

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 521

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 521

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

4358741_1

Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
 Lys Pro₂₁₀ Ser Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
 Asp₂₂₅ Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
 Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
 Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
 Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp Ile Ala Val Glu
 Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
 Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr Val₄₁₅
 Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser Val Met
 His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser
 Pro Gly₄₅₀ Lys

4358741_1

<210> 522

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 522

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

4358741_1

Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
 Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
 Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu
 Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
 Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val
 Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met
 His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser
 Pro Gly Lys₄₅₀

<210> 523

<211> 451

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 523

4358741_1

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

4358741_1

Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val

His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr

Arg Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀

Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile

Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr Val₄₁₅

Asp Lys Ser Arg Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly Lys₄₅₀

<210> 524

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 524

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala Ser₂₅ Gly Phe Thr Phe Ser₃₀ Tyr Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly Leu₄₅ Glu Trp Val

4358741_1

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys 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 Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

4358741_1

Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala₃₃₅ Pro Ile

Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu₃₅₀ Pro Gln Val

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp₃₈₅ Glu Ser Asn Gly₃₉₀ Gln Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val

Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys₄₃₀ Ser Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly₄₅₀ Lys

<210> 525

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 525

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Gly Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg₂₀ Leu Ser Cys Ala Ala₂₅ Ser Gly Phe Thr Phe₃₀ Ser Tyr Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val₅₀ Ile Trp Tyr Asp Ala₅₅ Ser Asn Lys Tyr₆₀ Tyr Ala Asp Ser Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn₇₅ Ser Lys Asn Thr Leu₈₀ Tyr

4358741_1

Leu Gln Met Asn Ser₈₅ Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Asp Gly₁₀₀ Thr Ile Phe Gly Val₁₀₅ Leu Leu Gly Asp Tyr₁₁₀ Trp Gly
 Gln Gly Thr₁₁₅ Leu Val Thr Val Ser₁₂₀ Ser Ala Ser Thr Lys₁₂₅ Gly Pro Ser
 Val Phe₁₃₀ Pro Leu Ala Pro Ser₁₃₅ Ser Lys Ser Thr Ser₁₄₀ Gly Gly Thr Ala
 Ala₁₄₅ Leu Gly Cys Leu Val₁₅₀ Lys Asp Tyr Phe Pro₁₅₅ Glu Pro Val Thr Val₁₆₀
 Ser Trp Asn Ser Gly₁₆₅ Ala Leu Thr Ser Gly₁₇₀ Val His Thr Phe Pro₁₇₅ Ala
 Val Leu Gln Ser₁₈₀ Ser Gly Leu Tyr Ser₁₈₅ Leu Ser Ser Val Val₁₉₀ Thr Val
 Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
 Lys Pro₂₁₀ Ser Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
 Asp₂₂₅ Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
 Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val

4358741_1

Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser

Leu Thr Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu

Trp Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀

Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr₄₁₅ Val

Asp Lys Ser Arg Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met

His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly Lys₄₅₀

<210> 526

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 526

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Gly Val Val Gln Pro Gly Arg₁₅

Ser Leu Arg₂₀ Leu Ser Cys Ala Ala Ser₂₅ Gly Phe Thr Phe Ser₃₀ Tyr Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val Ile Trp Tyr Asp Gly₅₅ Ser Asn Lys Tyr Tyr₆₀ Ala Asp Ala Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn Ser₇₅ Lys Asn Thr Leu Tyr₈₀

Leu Gln Met Asn Ser₈₅ Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

Ala Arg Asp Gly₁₀₀ Thr Ile Phe Gly Val₁₀₅ Leu Leu Gly Asp Tyr₁₁₀ Trp Gly

Gln Gly Thr₁₁₅ Leu Val Thr Val Ser₁₂₀ Ser Ala Ser Thr Lys₁₂₅ Gly Pro Ser

4358741_1

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

4358741_1

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 527

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 527

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

4358741_1

Trp Asn Ser Gly Ala₁₆₅ Leu Thr Ser Gly Val₁₇₀ His Thr Phe Pro Ala₁₇₅ Val
 Leu Gln Ser Ser₁₈₀ Gly Leu Tyr Ser Leu₁₈₅ Ser Ser Val Val Thr₁₉₀ Val Pro
 Ser Ser Ser₁₉₅ Leu Gly Thr Gln Thr₂₀₀ Tyr Ile Cys Asn Val₂₀₅ Asn His Lys
 Pro Ser₂₁₀ Asn Thr Lys Val Asp₂₁₅ Lys Lys Val Glu Pro₂₂₀ Lys Ser Cys Asp
 Lys₂₂₅ Thr His Thr Cys Pro₂₃₀ Pro Cys Pro Ala Pro₂₃₅ Glu Leu Leu Gly Gly₂₄₀
 Pro Ser Val Phe Leu₂₄₅ Phe Pro Pro Lys Pro₂₅₀ Lys Asp Thr Leu Met₂₅₅ Ile
 Ser Arg Thr Pro₂₆₀ Glu Val Thr Cys Val₂₆₅ Val Val Asp Val Ser₂₇₀ His Glu
 Asp Pro Glu₂₇₅ Val Lys Phe Asn Trp₂₈₀ Tyr Val Asp Gly Val₂₈₅ Glu Val His
 Asn Ala₂₉₀ Lys Thr Lys Pro Cys₂₉₅ Glu Glu Gln Tyr Gly₃₀₀ Ser Thr Tyr Arg
 Cys₃₀₅ Val Ser Val Leu Thr₃₁₀ Val Leu His Gln Asp₃₁₅ Trp Leu Asn Gly Lys₃₂₀
 Glu Tyr Lys Cys Lys₃₂₅ Val Ser Asn Lys Ala₃₃₀ Leu Pro Ala Pro Ile₃₃₅ Glu
 Lys Thr Ile Ser₃₄₀ Lys Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr
 Thr Leu Pro₃₅₅ Pro Ser Arg Glu Glu₃₆₀ Met Thr Lys Asn Gln₃₆₅ Val Ser Leu
 Thr Cys₃₇₀ Leu Val Lys Gly Phe₃₇₅ Tyr Pro Ser Asp Ile₃₈₀ Ala Val Glu Trp
 Glu₃₈₅ Ser Asn Gly Gln Pro₃₉₀ Glu Asn Asn Tyr Lys₃₉₅ Thr Thr Pro Pro Val₄₀₀
 Leu Asp Ser Asp Gly₄₀₅ Ser Phe Phe Leu Tyr₄₁₀ Ser Lys Leu Thr Val₄₁₅ Asp
 Lys Ser Arg Trp₄₂₀ Gln Gln Gly Asn Val₄₂₅ Phe Ser Cys Ser Val₄₃₀ Met His

4358741_1

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 528

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 528

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205

4358741_1

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 529

<211> 450

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 529

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
100 105 110Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

4358741_1

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 530

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 530

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala Ser₂₅ Gly Phe Ser Phe Ser₃₀ Ser Tyr

Gly Met His₃₅ Trp Val Arg Gln₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Ala Ile Trp Tyr Asp Ala₅₅ Asn Asn Lys Tyr Tyr₆₀ Ala Asp Ala Val

Lys₆₅ Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Ser Ser₇₅ Lys Asn Thr Leu Tyr₈₀

Leu Gln Met Asn₈₅ Ser Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

Ala Arg Asp Arg₁₀₀ Thr Ile Phe Gly Val₁₀₅ Val Leu Glu Tyr Trp₁₁₀ Gly Gln

Gly Thr Leu₁₁₅ Val Thr Val Ser Ser₁₂₀ Ala Ser Thr Lys Gly₁₂₅ Pro Ser Val

Phe Pro₁₃₀ Leu Ala Pro Ser Ser₁₃₅ Lys Ser Thr Ser Gly₁₄₀ Gly Thr Ala Ala

Leu₁₄₅ Gly Cys Leu Val Lys₁₅₀ Asp Tyr Phe Pro Glu₁₅₅ Pro Val Thr Val Ser₁₆₀

Trp Asn Ser Gly Ala₁₆₅ Leu Thr Ser Gly Val₁₇₀ His Thr Phe Pro Ala₁₇₅ Val

Leu Gln Ser Ser₁₈₀ Gly Leu Tyr Ser Leu₁₈₅ Ser Ser Val Val Thr₁₉₀ Val Pro

Ser Ser Ser₁₉₅ Leu Gly Thr Gln Thr₂₀₀ Tyr Ile Cys Asn Val₂₀₅ Asn His Lys

Pro Ser₂₁₀ Asn Thr Lys Val Asp₂₁₅ Lys Lys Val Glu Pro₂₂₀ Lys Ser Cys Asp

Lys Thr His Thr Cys Pro₂₃₀ Pro Cys Pro Ala Pro₂₃₅ Glu Leu Leu Gly Gly₂₄₀

Pro Ser Val Phe Leu₂₄₅ Phe Pro Pro Lys Pro₂₅₀ Lys Asp Thr Leu Met₂₅₅ Ile

Ser Arg Thr Pro₂₆₀ Glu Val Thr Cys Val₂₆₅ Val Val Asp Val Ser₂₇₀ His Glu

Asp Pro Glu Val Lys Phe Asn Trp₂₈₀ Tyr Val Asp Gly Val₂₈₅ Glu Val His

4358741_1

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 531

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 531

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

4358741_1

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320

4358741_1

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 532

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 532

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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

4358741_1

Ala Arg Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365

4358741_1

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 533
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 533
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

4358741_1

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400

4358741_1

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 534

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 534

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Ala Ile Trp Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175

4358741_1

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
450

<210> 535
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 535
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

4358741_1

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445
 Gly Lys
 450

<210> 536

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 536

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

4358741_1

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 537

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 537

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

4358741_1

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser 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 Arg Thr Ile Phe Gly Val Val Leu Glu Tyr Leu Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285

4358741_1

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 538

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 538

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Glu Asp Ala Val
50 55 60

4358741_1

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
 65 70 75 80
 Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335

4358741_1

Lys Thr Ile Ser₃₄₀ Lys Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr

Thr Leu Pro₃₅₅ Pro Ser Arg Glu Glu₃₆₀ Met Thr Lys Asn Gln₃₆₅ Val Ser Leu

Thr Cys₃₇₀ Leu Val Lys Gly Phe₃₇₅ Tyr Pro Ser Asp Ile₃₈₀ Ala Val Glu Trp

Glu₃₈₅ Ser Asn Gly Gln Pro₃₉₀ Glu Asn Asn Tyr Lys₃₉₅ Thr Thr Pro Pro Val₄₀₀

Leu Asp Ser Asp Gly₄₀₅ Ser Phe Phe Leu Tyr₄₁₀ Ser Lys Leu Thr Val₄₁₅ Asp

Lys Ser Arg Trp₄₂₀ Gln Gln Gly Asn Val₄₂₅ Phe Ser Cys Ser Val₄₃₀ Met His

Glu Ala Leu₄₃₅ His Asn His Tyr Thr₄₄₀ Gln Lys Ser Leu Ser₄₄₅ Leu Ser Pro

Gly Lys₄₅₀

<210> 539

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 539

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala₂₅ Ser Gly Phe Ser Phe₃₀ Ser Ser Tyr

Gly Met His₃₅ Trp Val Arg Gln₄₀ Ala Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val Ile Trp Tyr Asp Gly₅₅ Ser Asn Lys Tyr Tyr₆₀ Glu Asp Ser Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn Ser₇₅ Lys Asn Thr Leu Phe₈₀

Leu Gln Val Asn Ser₈₅ Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

4358741_1

Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

4358741_1

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 540

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 540

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Glu Asp Ala Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
 65 70 75 80

Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140

4358741_1

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

4358741_1

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 541

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 541

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Glu Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65 70 75 80

Leu Gln Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

4358741_1

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
450

<210> 542
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 542
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45
Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125
Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190
Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205
Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

4358741_1

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445
 Gly Lys
 450

<210> 543
 <211> 450
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 543

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Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1      5      10      15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
      20      25      30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
      35      40      45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
      100      105      110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
      115      120      125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
      130      135      140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
      145      150      155      160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
      165      170      175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
      180      185      190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
      195      200      205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
      210      215      220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
      225      230      235      240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
      245      250      255

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Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 544

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 544

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

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Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Gly Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

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Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 545

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 545

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
 35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val
 50 55 60

4358741_1

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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335

4358741_1

Lys Thr Ile Ser₃₄₀ Lys Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr

Thr Leu Pro₃₅₅ Pro Ser Arg Glu Glu₃₆₀ Met Thr Lys Asn Gln₃₆₅ Val Ser Leu

Thr Cys₃₇₀ Leu Val Lys Gly Phe₃₇₅ Tyr Pro Ser Asp Ile₃₈₀ Ala Val Glu Trp

Glu Ser Asn Gly Gln₃₉₀ Glu Asn Asn Tyr Lys₃₉₅ Thr Thr Pro Pro Val₄₀₀

Leu Asp Ser Asp Gly₄₀₅ Ser Phe Phe Leu Tyr₄₁₀ Ser Lys Leu Thr Val₄₁₅ Asp

Lys Ser Arg Trp₄₂₀ Gln Gln Gly Asn Val₄₂₅ Phe Ser Cys Ser Val₄₃₀ Met His

Glu Ala Leu₄₃₅ His Asn His Tyr Thr₄₄₀ Gln Lys Ser Leu Ser₄₄₅ Leu Ser Pro

Gly Lys₄₅₀

<210> 546

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 546

Gln Val Gln Leu₅ Val Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala₂₅ Ser Gly Phe Thr Phe₃₀ Ser Asn Tyr

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Ala Ile Trp Phe Asp Ala₅₅ Ser Asp Lys Tyr Tyr₆₀ Ala Asp Ala Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn₇₅ Ser Lys Asn Thr Leu Tyr₈₀

Leu Gln Met Asn₈₅ Ser Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

Ala Arg Asp Gln₁₀₀ Ala Ile Phe Gly Val₁₀₅ Val Pro Asp Tyr Trp₁₁₀ Gly Gln

4358741_1

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

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Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 547

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 547

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

4358741_1

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

4358741_1

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 548

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 548

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val
35 40 45

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

4358741_1

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285
 Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300
 Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 355 360 365
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415
 Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430
 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445
 Gly Lys
 450

<210> 549
 <211> 450
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 549
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala 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 Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220

4358741_1

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 550

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 550

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
115 120 125

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
130 135 140

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
145 150 155 160

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
165 170 175

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
180 185 190

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
195 200 205

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
210 215 220

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
225 230 235 240

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
245 250 255

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
260 265 270

4358741_1

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
275 280 285

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln
290 295 300

Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln
305 310 315 320

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
325 330 335

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
340 345 350

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
355 360 365

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
370 375 380

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
385 390 395 400

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
405 410 415

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
420 425 430

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
435 440 445

Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 551

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 551

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

4358741_1

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
115 120 125

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
130 135 140

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
145 150 155 160

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
165 170 175

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
180 185 190

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
195 200 205

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
210 215 220

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
225 230 235 240

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
245 250 255

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
260 265 270

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
275 280 285

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln
290 295 300

4358741_1

Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln
305 310 315 320

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
325 330 335

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
340 345 350

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
355 360 365

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
370 375 380

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
385 390 395 400

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
405 410 415

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
420 425 430

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
435 440 445

Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 552

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 552

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

4358741_1

Ser Leu Lys Leu Ser₈₅ Ser Val Thr Ala Ala₉₀ Asp Thr Ala Val Tyr₉₅ Tyr
 Cys Ala Arg Asp₁₀₀ Arg Ile Thr Ile Phe₁₀₅ Gly Val Val Met Gly₁₁₀ Gly Gly
 Met Asp Val₁₁₅ Trp Gly Gln Gly Thr₁₂₀ Thr Val Thr Val Ser₁₂₅ Ser Ala Ser
 Thr Lys₁₃₀ Gly Pro Ser Val Phe₁₃₅ Pro Leu Ala Pro Ser₁₄₀ Ser Lys Ser Thr
 Ser₁₄₅ Gly Gly Thr Ala Ala₁₅₀ Leu Gly Cys Leu Val₁₅₅ Lys Asp Tyr Phe Pro₁₆₀
 Glu Pro Val Thr Val₁₆₅ Ser Trp Asn Ser Gly₁₇₀ Ala Leu Thr Ser Gly₁₇₅ Val
 His Thr Phe Pro₁₈₀ Ala Val Leu Gln Ser₁₈₅ Ser Gly Leu Tyr Ser₁₉₀ Leu Ser
 Ser Val Val₁₉₅ Thr Val Pro Ser Ser₂₀₀ Ser Leu Gly Thr Gln₂₀₅ Thr Tyr Ile
 Cys Asn₂₁₀ Val Asn His Lys Pro₂₁₅ Ser Asn Thr Lys Val₂₂₀ Asp Lys Lys Val
 Glu₂₂₅ Pro Lys Ser Cys Asp₂₃₀ Lys Thr His Thr Cys₂₃₅ Pro Pro Cys Pro Ala₂₄₀
 Pro Glu Leu Leu Gly₂₄₅ Gly Pro Ser Val Phe₂₅₀ Leu Phe Pro Pro Lys₂₅₅ Pro
 Lys Asp Thr Leu₂₆₀ Met Ile Ser Arg Thr₂₆₅ Pro Glu Val Thr Cys₂₇₀ Val Val
 Val Asp Val₂₇₅ Ser His Glu Asp Pro₂₈₀ Glu Val Lys Phe Asn₂₈₅ Trp Tyr Val
 Asp Gly₂₉₀ Val Glu Val His Asn₂₉₅ Ala Lys Thr Lys Pro₃₀₀ Cys Glu Glu Gln
 Tyr₃₀₅ Gly Ser Thr Tyr Arg₃₁₀ Cys Val Ser Val Leu₃₁₅ Thr Val Leu His Gln₃₂₀
 Asp Trp Leu Asn Gly₃₂₅ Lys Glu Tyr Lys Cys₃₃₀ Lys Val Ser Asn Lys₃₃₅ Ala
 Leu Pro Ala Pro₃₄₀ Ile Glu Lys Thr Ile₃₄₅ Ser Lys Ala Lys Gly₃₅₀ Gln Pro

4358741_1

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
355 360 365

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
370 375 380

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
385 390 395 400

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
405 410 415

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
420 425 430

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
435 440 445

Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 553

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 553

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val₁₁₅ Trp Gly Gln Gly Thr₁₂₀ Thr Val Thr Val₁₂₅ Ser Ser Ala Ser
 Thr Lys₁₃₀ Gly Pro Ser Val₁₃₅ Phe Pro Leu Ala Pro Ser₁₄₀ Ser Lys Ser Thr
 Ser Gly Gly Thr Ala Ala₁₅₀ Leu Gly Cys Leu Val₁₅₅ Lys Asp Tyr Phe Pro₁₆₀
 Glu Pro Val Thr Val₁₆₅ Ser Trp Asn Ser Gly₁₇₀ Ala Leu Thr Ser Gly₁₇₅ Val
 His Thr Phe Pro₁₈₀ Ala Val Leu Gln Ser₁₈₅ Ser Gly Leu Tyr Ser₁₉₀ Leu Ser
 Ser Val Val₁₉₅ Thr Val Pro Ser Ser₂₀₀ Ser Leu Gly Thr Gln₂₀₅ Thr Tyr Ile
 Cys Asn Val₂₁₀ Asn His Lys Pro₂₁₅ Ser Asn Thr Lys Val₂₂₀ Asp Lys Lys Val
 Glu Pro Lys Ser Cys Asp₂₃₀ Lys Thr His Thr Cys₂₃₅ Pro Pro Cys Pro Ala₂₄₀
 Pro Glu Leu Leu Gly₂₄₅ Gly Pro Ser Val Phe₂₅₀ Leu Phe Pro Pro Lys₂₅₅ Pro
 Lys Asp Thr Leu₂₆₀ Met Ile Ser Arg Thr₂₆₅ Pro Glu Val Thr Cys₂₇₀ Val Val
 Val Asp Val₂₇₅ Ser His Glu Asp Pro₂₈₀ Glu Val Lys Phe Asn₂₈₅ Trp Tyr Val
 Asp Gly Val₂₉₀ Glu Val His Asn₂₉₅ Ala Lys Thr Lys Pro₃₀₀ Cys Glu Glu Gln
 Tyr Gly Ser Thr Tyr Arg₃₁₀ Cys Val Ser Val Leu₃₁₅ Thr Val Leu His Gln₃₂₀
 Asp Trp Leu Asn Gly₃₂₅ Lys Glu Tyr Lys Cys₃₃₀ Lys Val Ser Asn Lys₃₃₅ Ala
 Leu Pro Ala Pro₃₄₀ Ile Glu Lys Thr Ile₃₄₅ Ser Lys Ala Lys Gly₃₅₀ Gln Pro
 Arg Glu Pro₃₅₅ Gln Val Tyr Thr Leu₃₆₀ Pro Pro Ser Arg Glu₃₆₅ Glu Met Thr
 Lys Asn₃₇₀ Gln Val Ser Leu Thr₃₇₅ Cys Leu Val Lys Gly₃₈₀ Phe Tyr Pro Ser

4358741_1

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 385 390 395 400

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 405 410 415

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 420 425 430

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 435 440 445

Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

<210> 554

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 554

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
 20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
 100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
 115 120 125

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
 130 135 140

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
 145 150 155 160

4358741_1

Glu Pro Val Thr Val₁₆₅ Ser Trp Asn Ser Gly₁₇₀ Ala Leu Thr Ser Gly₁₇₅ Val
 His Thr Phe Pro₁₈₀ Ala Val Leu Gln Ser₁₈₅ Ser Gly Leu Tyr Ser₁₉₀ Leu Ser
 Ser Val Val₁₉₅ Thr Val Pro Ser Ser₂₀₀ Ser Leu Gly Thr Gln₂₀₅ Thr Tyr Ile
 Cys Asn₂₁₀ Val Asn His Lys Pro₂₁₅ Ser Asn Thr Lys Val₂₂₀ Asp Lys Lys Val
 Glu₂₂₅ Pro Lys Ser Cys Asp₂₃₀ Lys Thr His Thr Cys₂₃₅ Pro Pro Cys Pro Ala₂₄₀
 Pro Glu Leu Leu Gly₂₄₅ Gly Pro Ser Val Phe₂₅₀ Leu Phe Pro Pro Lys₂₅₅ Pro
 Lys Asp Thr Leu₂₆₀ Met Ile Ser Arg Thr₂₆₅ Pro Glu Val Thr Cys₂₇₀ Val Val
 Val Asp Val₂₇₅ Ser His Glu Asp Pro₂₈₀ Glu Val Lys Phe Asn₂₈₅ Trp Tyr Val
 Asp Gly₂₉₀ Val Glu Val His Asn₂₉₅ Ala Lys Thr Lys Pro₃₀₀ Cys Glu Glu Gln
 Tyr₃₀₅ Gly Ser Thr Tyr Arg₃₁₀ Cys Val Ser Val Leu₃₁₅ Thr Val Leu His Gln₃₂₀
 Asp Trp Leu Asn Gly₃₂₅ Lys Glu Tyr Lys Cys₃₃₀ Lys Val Ser Asn Lys₃₃₅ Ala
 Leu Pro Ala Pro₃₄₀ Ile Glu Lys Thr Ile₃₄₅ Ser Lys Ala Lys Gly₃₅₀ Gln Pro
 Arg Glu Pro₃₅₅ Gln Val Tyr Thr Leu₃₆₀ Pro Pro Ser Arg Glu₃₆₅ Glu Met Thr
 Lys Asn₃₇₀ Gln Val Ser Leu Thr₃₇₅ Cys Leu Val Lys Gly₃₈₀ Phe Tyr Pro Ser
 Asp₃₈₅ Ile Ala Val Glu Trp₃₉₀ Glu Ser Asn Gly Gln₃₉₅ Pro Glu Asn Asn Tyr₄₀₀
 Lys Thr Thr Pro₄₀₅ Pro Val Leu Asp Ser Asp₄₁₀ Gly Ser Phe Phe Leu₄₁₅ Tyr
 Ser Lys Leu Thr₄₂₀ Val Asp Lys Ser Arg₄₂₅ Trp Gln Gln Gly Asn₄₃₀ Val Phe

4358741_1

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
435 440 445

Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 555

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 555

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
115 120 125

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
130 135 140

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
145 150 155 160

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
165 170 175

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
180 185 190

4358741_1

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
 195 200 205
 Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
 210 215 220
 Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 225 230 235 240
 Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 245 250 255
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 260 265 270
 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 275 280 285
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln
 290 295 300
 Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln
 305 310 315 320
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 325 330 335
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 340 345 350
 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 355 360 365
 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 370 375 380
 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 385 390 395 400
 Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 405 410 415
 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 420 425 430
 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 435 440 445
 Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

4358741_1

<210> 556

<211> 456

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 556

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Ile Ser Ser Gly
20 25 30Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95Cys Ala Arg Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly
100 105 110Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
115 120 125Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
130 135 140Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
145 150 155 160Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
165 170 175His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
180 185 190Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
195 200 205Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
210 215 220Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
225 230 235 240

4358741_1

Pro Glu Leu Leu Gly₂₄₅ Gly Pro Ser Val Phe₂₅₀ Leu Phe Pro Pro Lys₂₅₅ Pro
 Lys Asp Thr Leu₂₆₀ Met Ile Ser Arg Thr₂₆₅ Pro Glu Val Thr Cys₂₇₀ Val Val
 Val Asp Val₂₇₅ Ser His Glu Asp Pro₂₈₀ Glu Val Lys Phe Asn₂₈₅ Trp Tyr Val
 Asp Gly₂₉₀ Val Glu Val His Asn₂₉₅ Ala Lys Thr Lys Pro₃₀₀ Cys Glu Glu Gln
 Tyr₃₀₅ Gly Ser Thr Tyr Arg₃₁₀ Cys Val Ser Val Leu₃₁₅ Thr Val Leu His Gln₃₂₀
 Asp Trp Leu Asn Gly₃₂₅ Lys Glu Tyr Lys Cys₃₃₀ Lys Val Ser Asn Lys₃₃₅ Ala
 Leu Pro Ala Pro₃₄₀ Ile Glu Lys Thr Ile₃₄₅ Ser Lys Ala Lys Gly₃₅₀ Gln Pro
 Arg Glu Pro₃₅₅ Gln Val Tyr Thr Leu₃₆₀ Pro Pro Ser Arg Glu₃₆₅ Glu Met Thr
 Lys Asn₃₇₀ Gln Val Ser Leu Thr₃₇₅ Cys Leu Val Lys Gly₃₈₀ Phe Tyr Pro Ser
 Asp Ile Ala Val Glu Trp₃₉₀ Glu Ser Asn Gly Gln₃₉₅ Pro Glu Asn Asn Tyr₄₀₀
 Lys Thr Thr Pro₄₀₅ Val Leu Asp Ser Asp₄₁₀ Gly Ser Phe Phe Leu₄₁₅ Tyr
 Ser Lys Leu Thr₄₂₀ Val Asp Lys Ser Arg₄₂₅ Trp Gln Gln Gly Asn₄₃₀ Val Phe
 Ser Cys Ser₄₃₅ Val Met His Glu Ala₄₄₀ Leu His Asn His Tyr₄₄₅ Thr Gln Lys
 Ser Leu Ser Leu Ser Pro Gly₄₅₅ Lys

<210> 557

<211> 453

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 557

4358741_1

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

4358741_1

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 558

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 558

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

4358741_1

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60
 Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

4358741_1

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 559

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 559

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

4358741_1

Met Glu Leu Asn Arg₈₅ Leu Arg Ser Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Glu Ala₁₀₀ Thr Ile Phe Gly Met₁₀₅ Val Ile Val Pro Phe₁₁₀ Asp Tyr
 Trp Gly Gln₁₁₅ Gly Thr Leu Val Thr₁₂₀ Val Ser Ser Ala Ser₁₂₅ Thr Lys Gly
 Pro Ser₁₃₀ Val Phe Pro Leu Ala₁₃₅ Pro Ser Ser Lys Ser₁₄₀ Thr Ser Gly Gly
 Thr₁₄₅ Ala Ala Leu Gly Cys₁₅₀ Leu Val Lys Asp Tyr₁₅₅ Phe Pro Glu Pro Val₁₆₀
 Thr Val Ser Trp Asn₁₆₅ Ser Gly Ala Leu Thr₁₇₀ Ser Gly Val His Thr₁₇₅ Phe
 Pro Ala Val Leu₁₈₀ Gln Ser Ser Gly Leu₁₈₅ Tyr Ser Leu Ser Ser₁₉₀ Val Val
 Thr Val Pro₁₉₅ Ser Ser Ser Leu Gly₂₀₀ Thr Gln Thr Tyr Ile₂₀₅ Cys Asn Val
 Asn His₂₁₀ Lys Pro Ser Asn Thr₂₁₅ Lys Val Asp Lys Lys₂₂₀ Val Glu Pro Lys
 Ser₂₂₅ Cys Asp Lys Thr His₂₃₀ Thr Cys Pro Pro Cys₂₃₅ Pro Ala Pro Glu Leu₂₄₀
 Leu Gly Gly Pro Ser₂₄₅ Val Phe Leu Phe Pro₂₅₀ Pro Lys Pro Lys Asp₂₅₅ Thr
 Leu Met Ile Ser₂₆₀ Arg Thr Pro Glu Val₂₆₅ Thr Cys Val Val Val₂₇₀ Asp Val
 Ser His Glu₂₇₅ Asp Pro Glu Val Lys₂₈₀ Phe Asn Trp Tyr Val₂₈₅ Asp Gly Val
 Glu Val₂₉₀ His Asn Ala Lys Thr₂₉₅ Lys Pro Cys Glu Glu₃₀₀ Gln Tyr Gly Ser
 Thr Tyr Arg Cys Val Ser₃₁₀ Val Leu Thr Val Leu₃₁₅ His Gln Asp Trp Leu₃₂₀
 Asn Gly Lys Glu Tyr₃₂₅ Lys Cys Lys Val Ser₃₃₀ Asn Lys Ala Leu Pro₃₃₅ Ala
 Pro Ile Glu Lys₃₄₀ Thr Ile Ser Lys Ala₃₄₅ Lys Gly Gln Pro Arg₃₅₀ Glu Pro

4358741_1

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 560

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 560

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

4358741_1

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

4358741_1

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 561

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 561

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

4358741_1

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415
 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 562
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 562
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

4358741_1

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415
 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430
 Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445
 Leu Ser Pro Gly Lys
 450

<210> 563

<211> 453

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 563

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

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Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 564

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 564

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

4358741_1

Ser Val Lys Val₂₀ Ser Cys Lys Ala Ser₂₅ Gly Tyr Thr Phe Thr₃₀ Gly Tyr
Tyr Ile His₃₅ Trp Val Arg Gln₄₀ Ala Pro Gly Gln Gly₄₅ Leu Glu Trp Met
Gly Trp Ile Asn Pro Asp Ala₅₅ Gly Gly Thr Asp Tyr₆₀ Ser Gln Arg Phe
Gln Gly Arg Phe Thr Met₇₀ Thr Arg Asp Thr Ser₇₅ Ile Ser Thr Ala Tyr₈₀
Met Glu Leu Asn Arg₈₅ Leu Arg Ser Asp Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
Ala Arg Glu Ala₁₀₀ Thr Ile Phe Gly Met₁₀₅ Val Ile Val Pro Phe₁₁₀ Asp Tyr
Trp Gly Gln₁₁₅ Gly Thr Leu Val Thr₁₂₀ Val Ser Ser Ala Ser₁₂₅ Thr Lys Gly
Pro Ser₁₃₀ Val Phe Pro Leu Ala₁₃₅ Pro Ser Ser Lys Ser₁₄₀ Thr Ser Gly Gly
Thr Ala Ala Leu Gly Cys₁₅₀ Leu Val Lys Asp Tyr₁₅₅ Phe Pro Glu Pro Val₁₆₀
Thr Val Ser Trp Asn₁₆₅ Ser Gly Ala Leu Thr₁₇₀ Ser Gly Val His Thr₁₇₅ Phe
Pro Ala Val₁₈₀ Leu Gln Ser Ser Gly Leu₁₈₅ Tyr Ser Leu Ser Ser₁₉₀ Val Val
Thr Val Pro₁₉₅ Ser Ser Ser Leu Gly₂₀₀ Thr Gln Thr Tyr Ile₂₀₅ Cys Asn Val
Asn His₂₁₀ Lys Pro Ser Asn Thr₂₁₅ Lys Val Asp Lys Lys₂₂₀ Val Glu Pro Lys
Ser Cys Asp Lys Thr His₂₃₀ Thr Cys Pro Pro Cys₂₃₅ Pro Ala Pro Glu Leu₂₄₀
Leu Gly Gly Pro Ser₂₄₅ Val Phe Leu Phe Pro₂₅₀ Pro Lys Pro Lys Asp Thr₂₅₅
Leu Met Ile Ser₂₆₀ Arg Thr Pro Glu Val₂₆₅ Thr Cys Val Val Val₂₇₀ Asp Val
Ser His Glu₂₇₅ Asp Pro Glu Val Lys₂₈₀ Phe Asn Trp Tyr Val₂₈₅ Asp Gly Val

4358741_1

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 565
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 565
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Asn Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

4358741_1

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 566

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 566

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

4358741_1

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

4358741_1

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 567
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 567
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Asn Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

4358741_1

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

4358741_1

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 568

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 568

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

4358741_1

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415
 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430
 Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

4358741_1

Leu Ser Pro Gly Lys
450

<210> 569
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 569
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

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Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 570

<211> 453

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 570

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

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Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 571

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 571

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

4358741_1

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
 35 40 45
 Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95
 Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

4358741_1

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 572

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 572

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
50 55 60

4358741_1

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
 85 90 95
 Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

4358741_1

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 573

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 573

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

4358741_1

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

4358741_1

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 574

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 574

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Val Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

4358741_1

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

4358741_1

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 575
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 575
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

4358741_1

Pro Ala Val Leu₁₈₀ Gln Ser Ser Gly Leu₁₈₅ Tyr Ser Leu Ser Ser Val Val
 Thr Val Pro₁₉₅ Ser Ser Ser Leu Gly₂₀₀ Thr Gln Thr Tyr Ile₂₀₅ Cys Asn Val
 Asn His₂₁₀ Lys Pro Ser Asn Thr₂₁₅ Lys Val Asp Lys Lys₂₂₀ Val Glu Pro Lys
 Ser₂₂₅ Cys Asp Lys Thr His₂₃₀ Thr Cys Pro Pro Cys₂₃₅ Pro Ala Pro Glu Leu₂₄₀
 Leu Gly Gly Pro Ser₂₄₅ Val Phe Leu Phe Pro₂₅₀ Pro Lys Pro Lys Asp₂₅₅ Thr
 Leu Met Ile Ser₂₆₀ Arg Thr Pro Glu Val₂₆₅ Thr Cys Val Val Val₂₇₀ Asp Val
 Ser His Glu₂₇₅ Asp Pro Glu Val Lys₂₈₀ Phe Asn Trp Tyr Val₂₈₅ Asp Gly Val
 Glu Val₂₉₀ His Asn Ala Lys Thr₂₉₅ Lys Pro Cys Glu Glu₃₀₀ Gln Tyr Gly Ser
 Thr Tyr Arg Cys Val Ser₃₁₀ Val Leu Thr Val Leu₃₁₅ His Gln Asp Trp Leu₃₂₀
 Asn Gly Lys Glu Tyr₃₂₅ Lys Cys Lys Val Ser₃₃₀ Asn Lys Ala Leu Pro₃₃₅ Ala
 Pro Ile Glu Lys₃₄₀ Thr Ile Ser Lys Ala₃₄₅ Lys Gly Gln Pro Arg₃₅₀ Glu Pro
 Gln Val Tyr₃₅₅ Thr Leu Pro Pro Ser₃₆₀ Arg Glu Glu Met Thr₃₆₅ Lys Asn Gln
 Val Ser₃₇₀ Leu Thr Cys Leu Val₃₇₅ Lys Gly Phe Tyr Pro₃₈₀ Ser Asp Ile Ala
 Val₃₈₅ Glu Trp Glu Ser Asn₃₉₀ Gly Gln Pro Glu Asn₃₉₅ Asn Tyr Lys Thr Thr₄₀₀
 Pro Pro Val Leu Asp₄₀₅ Ser Asp Gly Ser Phe₄₁₀ Phe Leu Tyr Ser Lys₄₁₅ Leu
 Thr Val Asp Lys₄₂₀ Ser Arg Trp Gln Gln₄₂₅ Gly Asn Val Phe Ser₄₃₀ Cys Ser
 Val Met His₄₃₅ Glu Ala Leu His Asn₄₄₀ His Tyr Thr Gln Lys₄₄₅ Ser Leu Ser

Leu Ser Pro Gly Lys
450

<210> 576
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 576
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

4358741_1

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 577
<211> 453
<212> PRT
<213> Artificial Sequence
<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 577

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Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1      5      10      15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
      20      25      30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
      35      40      45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
      50      55      60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
      65      70      75      80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
      85      90      95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
      100      105      110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
      115      120      125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
      130      135      140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
      145      150      155      160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
      165      170      175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
      180      185      190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
      195      200      205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
      210      215      220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
      225      230      235      240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
      245      250      255

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4358741_1

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 578

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 578

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

4358741_1

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
 50 55 60
 Gln Gly Arg Phe Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

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Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 579

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 579

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

4358741_1

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

4358741_1

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 580

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 580

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

4358741_1

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

4358741_1

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 581

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 581

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

4358741_1

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

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Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 582

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 582

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

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Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415
 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430
 Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445
 Leu Ser Pro Gly Lys
 450

<210> 583
 <211> 453
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 583
 Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

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Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 584

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 584

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

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Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 585

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 585

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

4358741_1

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

4358741_1

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 586

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 586

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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Met Glu Leu Ser Arg₈₅ Leu Arg Ser Asp₉₀ Thr Ala Val Tyr₉₅ Tyr Cys
 Ala Arg Glu Ala₁₀₀ Thr Ile Phe Gly₁₀₅ Leu Ile Val Pro Phe₁₁₀ Asp Tyr
 Trp Gly Gln₁₁₅ Gly Thr Leu Val Thr₁₂₀ Val Ser Ser Ala Ser₁₂₅ Thr Lys Gly
 Pro Ser₁₃₀ Val Phe Pro Leu Ala₁₃₅ Pro Ser Ser Lys Ser₁₄₀ Thr Ser Gly Gly
 Thr₁₄₅ Ala Ala Leu Gly Cys₁₅₀ Leu Val Lys Asp Tyr₁₅₅ Phe Pro Glu Pro Val₁₆₀
 Thr Val Ser Trp Asn₁₆₅ Ser Gly Ala Leu Thr₁₇₀ Ser Gly Val His Thr₁₇₅ Phe
 Pro Ala Val Leu₁₈₀ Gln Ser Ser Gly Leu₁₈₅ Tyr Ser Leu Ser Ser₁₉₀ Val Val
 Thr Val Pro₁₉₅ Ser Ser Ser Leu Gly₂₀₀ Thr Gln Thr Tyr Ile₂₀₅ Cys Asn Val
 Asn His₂₁₀ Lys Pro Ser Asn Thr₂₁₅ Lys Val Asp Lys Lys₂₂₀ Val Glu Pro Lys
 Ser₂₂₅ Cys Asp Lys Thr His₂₃₀ Thr Cys Pro Pro Cys₂₃₅ Pro Ala Pro Glu Leu₂₄₀
 Leu Gly Gly Pro Ser₂₄₅ Val Phe Leu Phe Pro₂₅₀ Pro Lys Pro Lys Asp₂₅₅ Thr
 Leu Met Ile Ser₂₆₀ Arg Thr Pro Glu Val₂₆₅ Thr Cys Val Val Val₂₇₀ Asp Val
 Ser His Glu₂₇₅ Asp Pro Glu Val Lys₂₈₀ Phe Asn Trp Tyr Val₂₈₅ Asp Gly Val
 Glu Val His Asn Ala Lys Thr₂₉₅ Lys Pro Cys Glu Glu₃₀₀ Gln Tyr Gly Ser
 Thr Tyr Arg Cys Val Ser₃₁₀ Val Leu Thr Val Leu₃₁₅ His Gln Asp Trp Leu₃₂₀
 Asn Gly Lys Glu Tyr₃₂₅ Lys Cys Lys Val Ser₃₃₀ Asn Lys Ala Leu Pro₃₃₅ Ala
 Pro Ile Glu Lys₃₄₀ Thr Ile Ser Lys Ala₃₄₅ Lys Gly Gln Pro Arg₃₅₀ Glu Pro

4358741_1

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 587
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 587
Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

4358741_1

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

4358741_1

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 588

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 588

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Thr Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

4358741_1

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400
 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415
 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

4358741_1

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 589

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 589

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

4358741_1

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

4358741_1

<210> 590

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 590

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45Gly Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

4358741_1

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 591

<211> 453

<212> PRT

<213> Artificial sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 591

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270

4358741_1

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285

Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300

Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 435 440 445

Leu Ser Pro Gly Lys
 450

<210> 592

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 592

Gln Val Pro Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

4358741_1

Gly Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125
 Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320

4358741_1

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
325 330 335

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
340 345 350

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 593
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 593
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

4358741_1

Met Glu Leu Ser₈₅ Leu Arg Ser Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

Ala Arg Glu Ala₁₀₀ Thr Ile Phe Gly Met₁₀₅ Leu Ile Val Pro Phe₁₁₀ Asp Tyr

Trp Gly Gln₁₁₅ Gly Thr Leu Val Thr₁₂₀ Val Ser Ser Ala Ser₁₂₅ Thr Lys Gly

Pro Ser₁₃₀ Val Phe Pro Leu Ala₁₃₅ Pro Ser Ser Lys Ser₁₄₀ Thr Ser Gly Gly

Thr Ala Ala Leu Gly Cys₁₅₀ Leu Val Lys Asp Tyr₁₅₅ Phe Pro Glu Pro Val₁₆₀

Thr Val Ser Trp Asn₁₆₅ Ser Gly Ala Leu Thr₁₇₀ Ser Gly Val His Thr₁₇₅ Phe

Pro Ala Val Leu₁₈₀ Gln Ser Ser Gly Leu₁₈₅ Tyr Ser Leu Ser Ser₁₉₀ Val Val

Thr Val Pro₁₉₅ Ser Ser Ser Leu Gly₂₀₀ Thr Gln Thr Tyr Ile₂₀₅ Cys Asn Val

Asn His₂₁₀ Lys Pro Ser Asn Thr₂₁₅ Lys Val Asp Lys Lys₂₂₀ Val Glu Pro Lys

Ser Cys Asp Lys Thr His₂₃₀ Thr Cys Pro Pro Cys₂₃₅ Pro Ala Pro Glu Leu₂₄₀

Leu Gly Gly Pro Ser₂₄₅ Val Phe Leu Phe Pro₂₅₀ Pro Lys Pro Lys Asp Thr₂₅₅

Leu Met Ile Ser₂₆₀ Arg Thr Pro Glu Val₂₆₅ Thr Cys Val Val Val₂₇₀ Asp Val

Ser His Glu₂₇₅ Asp Pro Glu Val Lys₂₈₀ Phe Asn Trp Tyr Val₂₈₅ Asp Gly Val

Glu Val₂₉₀ His Asn Ala Lys Thr₂₉₅ Lys Pro Cys Glu Glu₃₀₀ Gln Tyr Gly Ser

Thr Tyr Arg Cys Val Ser₃₁₀ Val Leu Thr Val Leu₃₁₅ His Gln Asp Trp Leu₃₂₀

Asn Gly Lys Glu Tyr₃₂₅ Lys Cys Lys Val Ser₃₃₀ Asn Lys Ala Leu Pro₃₃₅ Ala

Pro Ile Glu Lys₃₄₀ Thr Ile Ser Lys Ala₃₄₅ Lys Gly Gln Pro Arg₃₅₀ Glu Pro

4358741_1

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
355 360 365

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
370 375 380

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
385 390 395 400

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 594

<211> 453

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 594

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

4358741_1

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
 130 135 140
 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
 145 150 155 160
 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
 165 170 175
 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
 180 185 190
 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
 195 200 205
 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
 210 215 220
 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 225 230 235 240
 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 245 250 255
 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 260 265 270
 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 275 280 285
 Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser
 290 295 300
 Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 305 310 315 320
 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 325 330 335
 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 340 345 350
 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 355 360 365
 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 370 375 380
 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 385 390 395 400

4358741_1

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
420 425 430

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
435 440 445

Leu Ser Pro Gly Lys
450

<210> 595

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 595

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
130 135 140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
145 150 155 160

4358741_1

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380
 Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 385 390 395 400
 Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 405 410 415
 Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 420 425 430

4358741_1

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

<210> 596

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 596

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205

4358741_1

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380
 Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 385 390 395 400
 Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 405 410 415
 Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 420 425 430
 Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 435 440 445
 Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

<210> 597

<211> 458

4358741_1

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 597

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
130 135 140Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
145 150 155 160Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
165 170 175Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
180 185 190Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
195 200 205Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
210 215 220Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
225 230 235 240

4358741_1

Pro Ala Pro Glu Leu₂₄₅ Leu Gly Gly Pro Ser₂₅₀ Val Phe Leu Phe₂₅₅ Pro

Lys Pro Lys Asp₂₆₀ Thr Leu Met Ile Ser₂₆₅ Arg Thr Pro Glu Val₂₇₀ Thr Cys

Val Val Val₂₇₅ Asp Val Ser His Glu₂₈₀ Asp Pro Glu Val Lys₂₈₅ Phe Asn Trp

Tyr Val₂₉₀ Asp Gly Val Glu Val₂₉₅ His Asn Ala Lys Thr₃₀₀ Lys Pro Cys Glu

Glu₃₀₅ Gln Tyr Gly Ser Thr₃₁₀ Tyr Arg Cys Val Ser₃₁₅ Val Leu Thr Val Leu₃₂₀

His Gln Asp Trp Leu₃₂₅ Asn Gly Lys Glu Tyr₃₃₀ Lys Cys Lys Val Ser₃₃₅ Asn

Lys Ala Leu Pro₃₄₀ Ala Pro Ile Glu Lys₃₄₅ Thr Ile Ser Lys Ala₃₅₀ Lys Gly

Gln Pro Arg₃₅₅ Glu Pro Gln Val Tyr₃₆₀ Thr Leu Pro Pro Ser₃₆₅ Arg Glu Glu

Met Thr₃₇₀ Lys Asn Gln Val Ser₃₇₅ Leu Thr Cys Leu Val₃₈₀ Lys Gly Phe Tyr

Pro Ser Asp Ile Ala Val₃₉₀ Glu Trp Glu Ser Asn₃₉₅ Gly Gln Pro Glu Asn₄₀₀

Asn Tyr Lys Thr Thr₄₀₅ Pro Pro Val Leu Asp₄₁₀ Ser Asp Gly Ser Phe₄₁₅ Phe

Leu Tyr Ser Lys₄₂₀ Leu Thr Val Asp Lys₄₂₅ Ser Arg Trp Gln Gln₄₃₀ Gly Asn

Val Phe Ser₄₃₅ Cys Ser Val Met His₄₄₀ Glu Ala Leu His Asn₄₄₅ His Tyr Thr

Gln Lys₄₅₀ Ser Leu Ser Leu Ser₄₅₅ Pro Gly Lys

<210> 598

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 598

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

4358741_1

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110
 Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285

4358741_1

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
290 295 300

Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 599

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 599

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

4358741_1

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
130 135 140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
145 150 155 160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
165 170 175

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
180 185 190

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
195 200 205

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
210 215 220

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
225 230 235 240

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
245 250 255

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
260 265 270

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
275 280 285

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
290 295 300

Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
305 310 315 320

4358741_1

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 600

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 600

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

4358741_1

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110
 Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365

4358741_1

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 601

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 601

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

4358741_1

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380
 Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 385 390 395 400

4358741_1

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

<210> 602

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 602

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175

4358741_1

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380
 Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 385 390 395 400
 Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 405 410 415
 Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 420 425 430
 Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 435 440 445

4358741_1

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 603
<211> 458
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 603
Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
130 135 140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
145 150 155 160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
165 170 175

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
180 185 190

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
195 200 205

4358741_1

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300

Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

<210> 604

<211> 458

<212> PRT

<213> Artificial sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 604

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255

4358741_1

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
260 265 270

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
275 280 285

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
290 295 300

Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 605

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 605

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

4358741_1

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110
 Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285

4358741_1

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
290 295 300

Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 606

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 606

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

4358741_1

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110
 Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335

4358741_1

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 607

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 607

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Gly Gly Asp Tyr Val Phe Gly Thr Tyr Arg Pro His Tyr Tyr
 100 105 110
 Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120 125
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 130 135 140
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365

4358741_1

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 608

<211> 458

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 608

Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Phe Gly Thr Tyr Arg Pro His Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
130 135 140

4358741_1

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 145 150 155 160
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 165 170 175
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 180 185 190
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 195 200 205
 Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 210 215 220
 Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 225 230 235 240
 Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 245 250 255
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 260 265 270
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 275 280 285
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
 290 295 300
 Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
 305 310 315 320
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 325 330 335
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 340 345 350
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 355 360 365
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 370 375 380
 Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 385 390 395 400
 Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 405 410 415

4358741_1

Leu Tyr Ser Lys₄₂₀ Leu Thr Val Asp Lys₄₂₅ Ser Arg Trp Gln Gln₄₃₀ Gly Asn

Val Phe Ser₄₃₅ Cys Ser Val Met His₄₄₀ Glu Ala Leu His Asn₄₄₅ His Tyr Thr

Gln Lys₄₅₀ Ser Leu Ser Leu Ser₄₅₅ Pro Gly Lys

<210> 609

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 609

Gln Val Gln Leu Val₅ Glu Ser Gly Gly₁₀ Val Val Gln Pro Gly₁₅ Arg

Ser Leu Arg Leu₂₀ Ser Cys Ala Ala₂₅ Ser Gly Phe Thr Phe Ser₃₀ Asn Phe

Gly Met His₃₅ Trp Val Arg Gln Ala₄₀ Pro Gly Lys Gly₄₅ Leu Glu Trp Val

Ala Val₅₀ Ile Trp Tyr Asp Ala₅₅ Ser Asn Glu Asn Tyr₆₀ Ala Asp Ala Val

Lys Gly Arg Phe Thr Ile₇₀ Ser Arg Asp Asn Ser₇₅ Lys Asn Thr Leu Tyr₈₀

Leu Gln Met Asn Ser₈₅ Leu Arg Ala Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys

Ala Arg Asp Arg₁₀₀ Thr Ile Phe Gly Val₁₀₅ Val Leu Gly Asp Tyr₁₁₀ Trp Gly

Gln Gly Thr₁₁₅ Leu Val Thr Val Ser₁₂₀ Ser Ala Ser Thr Lys₁₂₅ Gly Pro Ser

Val Phe Pro Leu Ala Pro Ser₁₃₅ Ser Lys Ser Thr Ser₁₄₀ Gly Gly Thr Ala

Ala Leu Gly Cys Leu Val₁₅₀ Lys Asp Tyr Phe Pro₁₅₅ Glu Pro Val Thr Val₁₆₀

Ser Trp Asn Ser Gly₁₆₅ Ala Leu Thr Ser Gly₁₇₀ Val His Thr Phe Pro₁₇₅ Ala

4358741_1

Val Leu Gln Ser₁₈₀ Ser Gly Leu Tyr Ser₁₈₅ Leu Ser Ser Val₁₉₀ Thr Val
 Pro Ser Ser₁₉₅ Ser Leu Gly Thr Gln₂₀₀ Thr Tyr Ile Cys Asn₂₀₅ Val Asn His
 Lys Pro₂₁₀ Ser Asn Thr Lys Val₂₁₅ Asp Lys Lys Val Glu₂₂₀ Pro Lys Ser Cys
 Asp₂₂₅ Lys Thr His Thr Cys₂₃₀ Pro Pro Cys Pro Ala₂₃₅ Pro Glu Leu Leu Gly₂₄₀
 Gly Pro Ser Val Phe₂₄₅ Leu Phe Pro Pro Lys₂₅₀ Pro Lys Asp Thr Leu₂₅₅ Met
 Ile Ser Arg Thr₂₆₀ Pro Glu Val Thr Cys₂₆₅ Val Val Val Asp Val₂₇₀ Ser His
 Glu Asp Pro₂₇₅ Glu Val Lys Phe Asn₂₈₀ Trp Tyr Val Asp Gly₂₈₅ Val Glu Val
 His Asn₂₉₀ Ala Lys Thr Lys Pro₂₉₅ Cys Glu Glu Gln Tyr₃₀₀ Gly Ser Thr Tyr
 Arg₃₀₅ Cys Val Ser Val Leu₃₁₀ Thr Val Leu His Gln₃₁₅ Asp Trp Leu Asn Gly₃₂₀
 Lys Glu Tyr Lys Cys₃₂₅ Lys Val Ser Asn Lys₃₃₀ Ala Leu Pro Ala Pro₃₃₅ Ile
 Glu Lys Thr Ile₃₄₀ Ser Lys Ala Lys Gly₃₄₅ Gln Pro Arg Glu Pro₃₅₀ Gln Val
 Tyr Thr Leu₃₅₅ Pro Pro Ser Arg Glu₃₆₀ Glu Met Thr Lys Asn₃₆₅ Gln Val Ser
 Leu Thr₃₇₀ Cys Leu Val Lys Gly₃₇₅ Phe Tyr Pro Ser Asp₃₈₀ Ile Ala Val Glu
 Trp₃₈₅ Glu Ser Asn Gly Gln₃₉₀ Pro Glu Asn Asn Tyr₃₉₅ Lys Thr Thr Pro Pro₄₀₀
 Val Leu Asp Ser Asp₄₀₅ Gly Ser Phe Phe Leu₄₁₀ Tyr Ser Lys Leu Thr Val₄₁₅
 Asp Lys Ser Arg₄₂₀ Trp Gln Gln Gly Asn₄₂₅ Val Phe Ser Cys Ser₄₃₀ Val Met
 His Glu Ala₄₃₅ Leu His Asn His Tyr₄₄₀ Thr Gln Lys Ser Leu₄₄₅ Ser Leu Ser

Pro Gly Lys
450

<210> 610
<211> 451
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 610
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Phe
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala 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 Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

4358741_1

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445
 Pro Gly Lys
 450

<210> 611
 <211> 458
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 611

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Gln Met Gln Val Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1      5      10      15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
      20      25      30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
      35      40      45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
      50      55      60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
      65      70      75      80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
      85      90      95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr
      100      105      110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
      115      120      125

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
      130      135      140

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
      145      150      155      160

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
      165      170      175

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
      180      185      190

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
      195      200      205

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
      210      215      220

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
      225      230      235      240

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
      245      250      255

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4358741_1

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
260 265 270

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
275 280 285

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu
290 295 300

Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu
305 310 315 320

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
325 330 335

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
340 345 350

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
355 360 365

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
370 375 380

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
385 390 395 400

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
405 410 415

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
420 425 430

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
435 440 445

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 612

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 612

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

4358741_1

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Phe His 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

4358741_1

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 613

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 613

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
 100 105 110
 Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120 125
 Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 130 135 140
 Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
 145 150 155 160
 Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 165 170 175
 Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 180 185 190
 Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
 195 200 205
 Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 210 215 220
 Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 225 230 235 240
 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 245 250 255
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 260 265 270
 Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
 275 280 285
 Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys
 290 295 300
 Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val
 305 310 315 320
 Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
 325 330 335

4358741_1

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
340 345 350

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
355 360 365

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
370 375 380

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
385 390 395 400

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
405 410 415

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
420 425 430

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 614

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 614

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

4358741_1

Gln Gly Thr Lys Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

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Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 615

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 615

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

4358741_1

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

4358741_1

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
 450

<210> 616

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 616

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
 85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
 100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190

4358741_1

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 617
 <211> 451
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 617
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
 85 90 95
 Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220

4358741_1

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445

Pro Gly Lys
 450

<210> 618

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 618

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Lys Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

4358741_1

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
290 295 300

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 619

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 619

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

4358741_1

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
 85 90 95
 Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
 100 105 110
 Gln Gly Thr Lys Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125
 Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300

4358741_1

Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 620

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 620

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

4358741_1

Met Glu Leu Ser Ser₈₅ Leu Arg Ser Gln Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Gly Gly₁₀₀ Asp Tyr Val Trp Gly₁₀₅ Ser Tyr Arg Pro Tyr₁₁₀ Tyr Tyr
 Tyr Tyr Gly₁₁₅ Met Asp Val Trp Gly₁₂₀ Gln Gly Thr Thr Val₁₂₅ Thr Val Ser
 Ser Ala₁₃₀ Ser Thr Lys Gly Pro₁₃₅ Ser Val Phe Pro Leu₁₄₀ Ala Pro Ser Ser
 Lys₁₄₅ Ser Thr Ser Gly Gly₁₅₀ Thr Ala Ala Leu Gly₁₅₅ Cys Leu Val Lys Asp₁₆₀
 Tyr Phe Pro Glu Pro₁₆₅ Val Thr Val Ser Trp₁₇₀ Asn Ser Gly Ala Leu₁₇₅ Thr
 Ser Gly Val His₁₈₀ Thr Phe Pro Ala Val₁₈₅ Leu Gln Ser Ser Gly₁₉₀ Leu Tyr
 Ser Leu Ser₁₉₅ Ser Val Val Thr Val₂₀₀ Pro Ser Ser Ser Leu₂₀₅ Gly Thr Gln
 Thr Tyr₂₁₀ Ile Cys Asn Val Asn₂₁₅ His Lys Pro Ser Asn₂₂₀ Thr Lys Val Asp
 Lys₂₂₅ Lys Val Glu Pro Lys₂₃₀ Ser Cys Asp Lys Thr₂₃₅ His Thr Cys Pro Pro₂₄₀
 Cys Pro Ala Pro Glu₂₄₅ Leu Leu Gly Gly Pro₂₅₀ Ser Val Phe Leu Phe₂₅₅ Pro
 Pro Lys Pro Lys₂₆₀ Asp Thr Leu Met Ile₂₆₅ Ser Arg Thr Pro Glu₂₇₀ Val Thr
 Cys Val Val₂₇₅ Val Asp Val Ser His₂₈₀ Glu Asp Pro Glu Val₂₈₅ Lys Phe Asn
 Trp Tyr Val Asp Gly Val Glu₂₉₅ Val His Asn Ala Lys₃₀₀ Thr Lys Pro Cys
 Glu₃₀₅ Glu Gln Tyr Gly Ser₃₁₀ Thr Tyr Arg Cys Val₃₁₅ Ser Val Leu Thr Val₃₂₀
 Leu His Gln Asp Trp₃₂₅ Leu Asn Gly Lys Glu₃₃₀ Tyr Lys Cys Lys Val₃₃₅ Ser
 Asn Lys Ala Leu₃₄₀ Pro Ala Pro Ile Glu₃₄₅ Lys Thr Ile Ser Lys₃₅₀ Ala Lys

4358741_1

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
355 360 365

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
370 375 380

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
385 390 395 400

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
405 410 415

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
420 425 430

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 621

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 621

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly₁₁₅ Met Asp Val Trp Gly₁₂₀ Gln Gly Thr Thr Val₁₂₅ Thr Val Ser
 Ser Ala₁₃₀ Ser Thr Lys Gly₁₃₅ Pro Ser Val Phe Pro Leu₁₄₀ Ala Pro Ser Ser
 Lys₁₄₅ Ser Thr Ser Gly₁₅₀ Thr Ala Ala Leu Gly₁₅₅ Cys Leu Val Lys Asp₁₆₀
 Tyr Phe Pro Glu₁₆₅ Val Thr Val Ser Trp₁₇₀ Asn Ser Gly Ala Leu₁₇₅ Thr
 Ser Gly Val His₁₈₀ Thr Phe Pro Ala Val₁₈₅ Leu Gln Ser Ser Gly₁₉₀ Leu Tyr
 Ser Leu Ser₁₉₅ Ser Val Val Thr Val₂₀₀ Pro Ser Ser Ser Leu₂₀₅ Gly Thr Gln
 Thr Tyr₂₁₀ Ile Cys Asn Val Asn₂₁₅ His Lys Pro Ser Asn₂₂₀ Thr Lys Val Asp
 Lys₂₂₅ Lys Val Glu Pro Lys₂₃₀ Ser Cys Asp Lys Thr₂₃₅ His Thr Cys Pro Pro₂₄₀
 Cys Pro Ala Pro Glu₂₄₅ Leu Leu Gly Gly₂₅₀ Pro Ser Val Phe Leu Phe₂₅₅ Pro
 Pro Lys Pro Lys₂₆₀ Asp Thr Leu Met Ile₂₆₅ Ser Arg Thr Pro Glu₂₇₀ Val Thr
 Cys Val Val₂₇₅ Val Asp Val Ser His₂₈₀ Glu Asp Pro Glu Val₂₈₅ Lys Phe Asn
 Trp Tyr₂₉₀ Val Asp Gly Val Glu₂₉₅ Val His Asn Ala Lys₃₀₀ Thr Lys Pro Cys
 Glu₃₀₅ Glu Gln Tyr Gly Ser₃₁₀ Thr Tyr Arg Cys Val₃₁₅ Ser Val Leu Thr Val₃₂₀
 Leu His Gln Asp Trp₃₂₅ Leu Asn Gly Lys Glu₃₃₀ Tyr Lys Cys Lys Val₃₃₅ Ser
 Asn Lys Ala Leu₃₄₀ Pro Ala Pro Ile Glu₃₄₅ Lys Thr Ile Ser Lys₃₅₀ Ala Lys
 Gly Gln Pro₃₅₅ Arg Glu Pro Gln Val₃₆₀ Tyr Thr Leu Pro Pro₃₆₅ Ser Arg Glu
 Glu Met₃₇₀ Thr Lys Asn Gln Val₃₇₅ Ser Leu Thr Cys Leu₃₈₀ Val Lys Gly Phe

4358741_1

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
385 390 395 400

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
405 410 415

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
420 425 430

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 622

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 622

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
130 135 140

Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
145 150 155 160

4358741_1

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 165 170 175
 Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 180 185 190
 Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
 195 200 205
 Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 210 215 220
 Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 225 230 235 240
 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 245 250 255
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 260 265 270
 Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
 275 280 285
 Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys
 290 295 300
 Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val
 305 310 315 320
 Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
 325 330 335
 Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
 340 345 350
 Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
 355 360 365
 Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
 370 375 380
 Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
 385 390 395 400
 Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
 405 410 415
 Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
 420 425 430

4358741_1

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 623

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 623

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
130 135 140

Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
145 150 155 160

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
165 170 175

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
180 185 190

4358741_1

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
 195 200 205
 Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 210 215 220
 Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 225 230 235 240
 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 245 250 255
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 260 265 270
 Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
 275 280 285
 Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys
 290 295 300
 Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val
 305 310 315 320
 Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
 325 330 335
 Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
 340 345 350
 Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
 355 360 365
 Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
 370 375 380
 Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
 385 390 395 400
 Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
 405 410 415
 Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
 420 425 430
 Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
 435 440 445
 Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

4358741_1

<210> 624

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 624

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
50 55 60Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
85 90 95Ala Arg Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
100 105 110Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
130 135 140Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
145 150 155 160Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
165 170 175Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
180 185 190Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
195 200 205Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
210 215 220Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
225 230 235 240

4358741_1

Cys Pro Ala Pro Glu₂₄₅ Leu Leu Gly Gly Pro₂₅₀ Ser Val Phe Leu Phe₂₅₅ Pro
Pro Lys Pro Lys₂₆₀ Asp Thr Leu Met Ile₂₆₅ Ser Arg Thr Pro Glu₂₇₀ Val Thr
Cys Val Val₂₇₅ Val Asp Val Ser His₂₈₀ Glu Asp Pro Glu Val₂₈₅ Lys Phe Asn
Trp Tyr Val Asp Gly Val Glu₂₉₅ Val His Asn Ala Lys₃₀₀ Thr Lys Pro Cys
Glu₃₀₅ Glu Gln Tyr Gly Ser₃₁₀ Thr Tyr Arg Cys Val₃₁₅ Ser Val Leu Thr Val₃₂₀
Leu His Gln Asp Trp₃₂₅ Leu Asn Gly Lys Glu₃₃₀ Tyr Lys Cys Lys Val₃₃₅ Ser
Asn Lys Ala Leu₃₄₀ Pro Ala Pro Ile Glu₃₄₅ Lys Thr Ile Ser Lys₃₅₀ Ala Lys
Gly Gln Pro₃₅₅ Arg Glu Pro Gln Val₃₆₀ Tyr Thr Leu Pro Pro₃₆₅ Ser Arg Glu
Glu Met₃₇₀ Thr Lys Asn Gln Val₃₇₅ Ser Leu Thr Cys Leu₃₈₀ Val Lys Gly Phe
Tyr Pro Ser Asp Ile Ala₃₉₀ Val Glu Trp Glu Ser₃₉₅ Asn Gly Gln Pro Glu₄₀₀
Asn Asn Tyr Lys Thr₄₀₅ Thr Pro Pro Val Leu₄₁₀ Asp Ser Asp Gly Ser₄₁₅ Phe
Phe Leu Tyr Ser₄₂₀ Lys Leu Thr Val Asp₄₂₅ Lys Ser Arg Trp Gln₄₃₀ Gln Gly
Asn Val Phe₄₃₅ Ser Cys Ser Val Met₄₄₀ His Glu Ala Leu His₄₄₅ Asn His Tyr
Thr Gln₄₅₀ Lys Ser Leu Ser Leu₄₅₅ Ser Pro Gly Lys

<210> 625

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 625

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala 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 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr
 100 105 110
 Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120 125
 Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 130 135 140
 Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
 145 150 155 160
 Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 165 170 175
 Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 180 185 190
 Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
 195 200 205
 Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 210 215 220
 Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 225 230 235 240
 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 245 250 255
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 260 265 270

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Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
275 280 285

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys
290 295 300

Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val
305 310 315 320

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
325 330 335

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
340 345 350

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
355 360 365

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
370 375 380

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
385 390 395 400

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
405 410 415

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
420 425 430

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 626

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 626

Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

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Gly Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Gln Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Gly Asp Tyr Val Phe Gly Ser Tyr Arg Pro Tyr Tyr Tyr
 100 105 110
 Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120 125
 Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
 130 135 140
 Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
 145 150 155 160
 Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
 165 170 175
 Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
 180 185 190
 Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
 195 200 205
 Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
 210 215 220
 Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
 225 230 235 240
 Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
 245 250 255
 Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
 260 265 270
 Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
 275 280 285
 Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys
 290 295 300
 Glu Glu Gln Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val
 305 310 315 320

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Leu His Gln Asp Trp₃₂₅ Leu Asn Gly Lys Glu₃₃₀ Tyr Lys Cys Lys Val₃₃₅ Ser

Asn Lys Ala Leu₃₄₀ Pro Ala Pro Ile Glu₃₄₅ Lys Thr Ile Ser Lys₃₅₀ Ala Lys

Gly Gln Pro₃₅₅ Arg Glu Pro Gln Val₃₆₀ Tyr Thr Leu Pro Pro₃₆₅ Ser Arg Glu

Glu Met₃₇₀ Thr Lys Asn Gln Val₃₇₅ Ser Leu Thr Cys Leu₃₈₀ Val Lys Gly Phe

Tyr₃₈₅ Pro Ser Asp Ile Ala₃₉₀ Val Glu Trp Glu Ser₃₉₅ Asn Gly Gln Pro Glu₄₀₀

Asn Asn Tyr Lys Thr₄₀₅ Thr Pro Pro Val Leu₄₁₀ Asp Ser Asp Gly Ser₄₁₅ Phe

Phe Leu Tyr Ser₄₂₀ Lys Leu Thr Val Asp₄₂₅ Lys Ser Arg Trp Gln₄₃₀ Gln Gly

Asn Val Phe₄₃₅ Ser Cys Ser Val Met₄₄₀ His Glu Ala Leu His₄₄₅ Asn His Tyr

Thr Gln₄₅₀ Lys Ser Leu Ser Leu₄₅₅ Ser Pro Gly Lys

<210> 627

<211> 459

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 627

Gln Met Gln Leu Val₅ Gln Ser Gly Ala Glu₁₀ Val Lys Lys Pro Gly₁₅ Ala

Ser Val Lys Val₂₀ Ser Cys Lys Ala Ser₂₅ Gly Tyr Thr Phe Thr₃₀ Ser Tyr

Asp Ile Asn Trp Val Arg Gln Ala₄₀ Pro Gly Gln Gly Leu₄₅ Glu Trp Met

Gly Trp₅₀ Met Asn Pro Asn Ser₅₅ Gly Gly Thr Gly Tyr₆₀ Ala Gln Lys Phe

Gln Gly Arg Val Thr Met₇₀ Thr Arg Asp Thr Ser₇₅ Ile Ser Thr Ala Tyr₈₀

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Met Glu Leu Ser Ser₈₅ Leu Arg Ser Asp Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Gly Gly₁₀₀ Asp Tyr Val Phe Gly₁₀₅ Ser Tyr Arg Pro Tyr₁₁₀ Tyr Tyr
 Tyr Tyr Gly₁₁₅ Met Asp Val Trp Gly₁₂₀ Gln Gly Thr Thr Val₁₂₅ Thr Val Ser
 Ser Ala₁₃₀ Ser Thr Lys Gly Pro₁₃₅ Ser Val Phe Pro Leu₁₄₀ Ala Pro Ser Ser
 Lys₁₄₅ Ser Thr Ser Gly Gly₁₅₀ Thr Ala Ala Leu Gly₁₅₅ Cys Leu Val Lys Asp₁₆₀
 Tyr Phe Pro Glu Pro₁₆₅ Val Thr Val Ser Trp₁₇₀ Asn Ser Gly Ala Leu₁₇₅ Thr
 Ser Gly Val His₁₈₀ Thr Phe Pro Ala Val₁₈₅ Leu Gln Ser Ser Gly₁₉₀ Leu Tyr
 Ser Leu Ser₁₉₅ Ser Val Val Thr Val₂₀₀ Pro Ser Ser Ser Leu₂₀₅ Gly Thr Gln
 Thr Tyr₂₁₀ Ile Cys Asn Val Asn₂₁₅ His Lys Pro Ser Asn₂₂₀ Thr Lys Val Asp
 Lys₂₂₅ Lys Val Glu Pro Lys₂₃₀ Ser Cys Asp Lys Thr₂₃₅ His Thr Cys Pro Pro₂₄₀
 Cys Pro Ala Pro Glu₂₄₅ Leu Leu Gly Gly Pro₂₅₀ Ser Val Phe Leu Phe₂₅₅ Pro
 Pro Lys Pro Lys₂₆₀ Asp Thr Leu Met Ile₂₆₅ Ser Arg Thr Pro Glu₂₇₀ Val Thr
 Cys Val Val₂₇₅ Val Asp Val Ser His₂₈₀ Glu Asp Pro Glu Val₂₈₅ Lys Phe Asn
 Trp Tyr₂₉₀ Val Asp Gly Val Glu₂₉₅ Val His Asn Ala Lys₃₀₀ Thr Lys Pro Cys
 Glu₃₀₅ Glu Gln Tyr Gly Ser₃₁₀ Thr Tyr Arg Cys Val₃₁₅ Ser Val Leu Thr Val₃₂₀
 Leu His Gln Asp Trp₃₂₅ Leu Asn Gly Lys Glu₃₃₀ Tyr Lys Cys Lys Val₃₃₅ Ser
 Asn Lys Ala Leu₃₄₀ Pro Ala Pro Ile Glu₃₄₅ Lys Thr Ile Ser Lys₃₅₀ Ala Lys

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Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
355 360 365

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
370 375 380

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
385 390 395 400

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
405 410 415

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
420 425 430

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

<210> 628

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 628

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala 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 Ser Ala Met Tyr Phe Cys
85 90 95

Ala Arg Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
115 120 125

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Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr
 290 295 300
 Arg Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

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Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 629
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 629
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 630
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 630
Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 631
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 631
Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 632
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 632
Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 633
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 633
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
1 5 10 15

Ala

<210> 634
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 634
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
1 5 10 15

Ala

<210> 635
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 635
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 636
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 636

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 637

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 637

Arg Ala Ser Gln Ser Ile Ser Tyr Ser Tyr Leu Ala
1 5 10

<210> 638

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 638

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 639

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 639

Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
1 5 10

<210> 640

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 640

Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 641

<211> 11

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 641
 Arg Ala Ser Gln Gly Leu Ile Ile Trp Leu Ala
 1 5 10

<210> 642
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 642
 Arg Ala Ser Gln Gly Leu Ile Ile Trp Leu Ala
 1 5 10

<210> 643
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 643
 Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1 5 10

<210> 644
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 644
 Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1 5 10

<210> 645
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 645
 Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1 5 10

<210> 646
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 646
 Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1 5 10

<210> 647
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 647
 Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1 5 10

<210> 648
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 648
 Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1 5 10

<210> 649
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 649
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 650
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 650
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 651
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 651
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 652
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 652
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 653
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 653
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 654
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 654
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 655
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 655

4358741_1
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 656
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 656
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 657
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 657
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 658
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 658
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 659
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 659
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 660
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 660
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 661
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 661
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 662
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 662
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 663
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 663
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 664
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 664
 Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
 1 5 10

<210> 665
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 665

Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
1 5 10

<210> 666

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 666

Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
1 5 10

<210> 667

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 667

Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
1 5 10

<210> 668

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 668

Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 669

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 669

Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 670

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 670

Gln	Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr	Leu	Asn
1			5						10	

<210> 671

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 671

Gln	Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr	Leu	Asn
1			5						10	

<210> 672

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 672

Gln	Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr	Leu	Asn
1			5						10	

<210> 673

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 673

Gln	Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr	Leu	Asn
1			5						10	

<210> 674

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 674

Gln	Ala	Ser	Gln	Asp	Ile	Ser	Asn	Tyr	Leu	Asn
1			5						10	

<210> 675

<211> 11

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 675
 Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
 1 5 10

<210> 676
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 676
 Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
 1 5 10

<210> 677
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 677
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 678
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 678
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 679
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 679
 Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
 1 5 10

<210> 680
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 680
Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 681
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 681
Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 682
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 682
Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 683
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 683
Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 684
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 684
Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 685
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 685
Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 686
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 686
Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 687
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 687
Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 688
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 688
Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 689
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 689

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Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 690

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 690

Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 691

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 691

Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 692

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 692

Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 693

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 693

Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
1 5 10

<210> 694

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 694
 Gln Ala Ser Gln Asp Ile Thr Asn Tyr Leu Asn
 1 5 10

<210> 695
 <211> 12
 <212> PRT
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<220>
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<400> 695
 Arg Ala Ser Gln Ile Phe Thr Ser Thr Tyr Leu Ala
 1 5 10

<210> 696
 <211> 12
 <212> PRT
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<220>
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<400> 696
 Arg Ala Ser Gln Ile Phe Thr Ser Thr Tyr Leu Ala
 1 5 10

<210> 697
 <211> 12
 <212> PRT
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<220>
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<400> 697
 Arg Ala Ser Gln Ile Phe Thr Ser Thr Tyr Leu Ala
 1 5 10

<210> 698
 <211> 12
 <212> PRT
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<220>
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<400> 698
 Arg Ala Ser Gln Ile Phe Thr Ser Thr Tyr Leu Ala
 1 5 10

<210> 699
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 699

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 700

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 700

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 701

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 701

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 702

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 702

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 703

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 703

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 704

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 704

Arg	Ala	Ser	Gln	Ser	Val	Ser	Ser	Asn	Leu	Ala
1			5					10		

<210> 705

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 705

Arg	Ala	Ser	Gln	Ser	Val	Ser	Ser	Asn	Leu	Ala
1			5					10		

<210> 706

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 706

Arg	Ala	Ser	Gln	Ser	Val	Ser	Ser	Asn	Leu	Ala
1			5					10		

<210> 707

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 707

Arg	Ala	Ser	Gln	Ser	Ile	Ser	Tyr	Ser	Tyr	Leu	Ala
1			5					10			

<210> 708

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 708

Arg	Ala	Ser	Gln	Ser	Ile	Ser	Tyr	Ser	Tyr	Leu	Ala
1			5					10			

<210> 709

<211> 12

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 709
 Arg Ala Ser Gln Ser Ile Ser Tyr Ser Tyr Leu Ala
 1 5 10

<210> 710
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 710
 Arg Ala Ser Gln Ser Ile Ser Tyr Ser Tyr Leu Ala
 1 5 10

<210> 711
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 711
 Arg Ala Ser Gln Ser Ile Ser Tyr Ser Tyr Leu Ala
 1 5 10

<210> 712
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 712
 Arg Ala Ser Gln Ser Ile Ser Tyr Ser Tyr Leu Ala
 1 5 10

<210> 713
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 713
 Arg Ala Ser Gln Ser Ile Ser Tyr Ser Tyr Leu Ala
 1 5 10

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<210> 714
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 714
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 715
 <211> 17
 <212> PRT
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<220>
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<400> 715
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 716
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 716
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 717
 <211> 17
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 717
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 718
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 718
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 719
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 719
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 720
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 720
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 721
 <211> 17
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 721

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Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
1 5 10 15

Ala

<210> 722
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 722
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
1 5 10 15

Ala

<210> 723
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 723
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
1 5 10 15

Ala

<210> 724
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 724
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
1 5 10 15

Ala

<210> 725
<211> 17
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<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic peptide

<400> 725

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 726

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 726

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 727

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 727

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 728

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 728

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 729

<211> 17

4358741_1

<212> PRT
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<220>
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<400> 729
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 730
<211> 17
<212> PRT
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<220>
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<400> 730
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 731
<211> 17
<212> PRT
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<220>
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<400> 731
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 732
<211> 17
<212> PRT
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<220>
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<400> 732
Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

4358741_1

<210> 733
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 733
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 734
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 734
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 735
 <211> 17
 <212> PRT
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<220>
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<400> 735
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 736
 <211> 17
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<220>
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<400> 736
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 737
 <211> 17
 <212> PRT
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<220>
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<400> 737
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 738
 <211> 17
 <212> PRT
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<220>
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<400> 738
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Ile
 1 5 10 15

Ala

<210> 739
 <211> 17
 <212> PRT
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<220>
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<400> 739
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 740
 <211> 17
 <212> PRT
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<220>
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<400> 740

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 741

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 741

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 742

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 742

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 743

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 743

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 744

<211> 17

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 744

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 745

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 745

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 746

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 746

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 747

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 747

Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

4358741_1

<210> 748
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 748
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 749
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 749
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 750
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 750
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 751
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 751
 Lys Ser Ser Gln Ser Val Leu Ser Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 752
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 752
 Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln Thr Val Asn
 1 5 10

<210> 753
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 753
 Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln Thr Val Asn
 1 5 10

<210> 754
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 754
 Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn
 1 5 10

<210> 755
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 755
 Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn
 1 5 10

<210> 756
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 756
Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln Thr Val Asn
1 5 10

<210> 757
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 757
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn
1 5 10

<210> 758
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 758
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 759
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 759
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 760
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 760
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 761
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 761

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 762

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 762

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 763

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 763

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn
1 5 10

<210> 764

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 764

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Asn
1 5 10

<210> 765

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 765

Ser Gly Ser Ser Ser Asn Ile Gly Ser Gln Thr Val Asn
1 5 10

<210> 766

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 766

Arg Ala Ser Gln Asp Leu Arg Asn Tyr Leu Gly
1 5 10

<210> 767

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 767

Arg Ala Ser Gln Asp Ile Arg Asp Tyr Leu Gly
1 5 10

<210> 768

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 768

Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
1 5 10

<210> 769

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 769

Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
1 5 10

<210> 770

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 770

Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
1 5 10

<210> 771

<211> 11

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 771
 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 772
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 772
 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 773
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 773
 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 774
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 774
 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 775
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 775
 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 776
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 776
 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 777
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 777
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 778
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 778
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 779
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 779
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 780
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 780
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 781
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 781
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 782
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 782
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 783
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 783
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 784
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 784
 Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 785
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 785

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 Arg Ala Ser Gln Thr Ile Ser Arg Phe Leu Asn
 1 5 10

<210> 786
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 786
 Thr Asn Asn Gln Arg Pro Ser
 1 5

<210> 787
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 787
 Gly Ala Ser Ser Leu Gln Ser
 1 5

<210> 788
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 788
 Gly Ala Ser Ser Leu Gln Ser
 1 5

<210> 789
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 789
 Asp Ala Ser Asn Leu Glu Thr
 1 5

<210> 790
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 790
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 791
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

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1 5

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1 5

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1 5

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<210> 797

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<210> 798

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<210> 799

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<210> 802

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<210> 804

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<210> 805

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1 5

<210> 823
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1 5

<210> 824
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1 5

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1 5

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1 5

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1 5

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1 5

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<210> 830

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<210> 831

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<210> 832

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<210> 833

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1 5

<210> 834

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<210> 835

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<210> 837

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<210> 838

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Gly Ala Ser Ser Leu Gln Ser
1 5

<210> 839

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1 5

<210> 840
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1 5

<210> 841
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1 5

<210> 842
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1 5

<210> 843
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<210> 844
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1 5

<210> 846
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<210> 847
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<210> 848
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<210> 849
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<210> 850
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<210> 852
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<210> 853
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<400> 853

Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 854
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<210> 855
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1 5

<210> 857
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<220>
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1 5

<210> 858
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1 5

<210> 859
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<220>
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Gly Ala Ala Thr Arg Ala Thr
1 5

<210> 860
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Gly Ala Ala Thr Arg Ala Thr
1 5

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1 5

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peptide

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1 5

<210> 863
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<220>

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1 5

<210> 864

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<220>

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<210> 865

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<210> 866

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Gly Ala Ser Ser Arg Ala Thr
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<210> 867

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1 5

<210> 868

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<220>

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<400> 868

Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 869

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Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 870

<211> 7

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<400> 870

Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 871

<211> 7

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<220>

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<400> 871

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 872

<211> 7

<212> PRT

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<400> 872

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 873

<211> 7

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<400> 873
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 874
<211> 7
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<400> 874
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 875
<211> 7
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<400> 875
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 876
<211> 7
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<400> 876
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 877
<211> 7
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<220>
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<400> 877
Trp Ala Ser Thr Arg Glu Ser
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<210> 878
<211> 7
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<220>
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<400> 878
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 879
<211> 7
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Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 880
<211> 7
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<400> 880
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 881
<211> 7
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<220>
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<400> 881
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 882
<211> 7
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<220>
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<400> 882
Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 883
<211> 7
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<220>
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<400> 883
Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 884
<211> 7
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<220>
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<400> 884
Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 885
<211> 7
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<220>
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<400> 885
Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 886
<211> 7
<212> PRT
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<220>
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<400> 886
Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 887
<211> 7
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<220>
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<400> 887

Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 888

<211> 7

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 888

Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 889

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<220>

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<400> 889

Trp Thr Ser Thr Arg Glu Ser
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<210> 890

<211> 7

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 890

Trp Thr Ser Thr Arg Glu Ser
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<210> 891

<211> 7

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 891

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 892

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 892
Trp Ala Ser Thr Arg Glu Ser
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<210> 893
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<220>
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peptide

<400> 893
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 894
<211> 7
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peptide

<400> 894
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 895
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peptide

<400> 895
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 896
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peptide

<400> 896
Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 897
<211> 7
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<223> Description of Artificial Sequence: Synthetic peptide

<400> 897

Trp Thr Ser Thr Arg Asp Ser
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<210> 898

<211> 7

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 898

Trp Thr Ser Thr Arg Asp Ser
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<210> 899

<211> 7

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 899

Trp Thr Ser Thr Arg Asp Ser
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<210> 900

<211> 7

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 900

Trp Thr Ser Thr Arg Asp Ser
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<210> 901

<211> 7

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 901

Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 902

<211> 7

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 902

Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 903

<211> 7

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 903

Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 904

<211> 7

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 904

Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 905

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 905

Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 906

<211> 7

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 906

Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 907

<211> 7

<212> PRT
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<400> 907
Trp Thr Ser Thr Arg Asp Ser
1 5

<210> 908
<211> 7
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<400> 908
Trp Thr Ser Thr Arg Glu Ser
1 5

<210> 909
<211> 7
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<400> 909
Thr Asn Asn Gln Arg Pro Ser
1 5

<210> 910
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<210> 939

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<210> 948
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<210> 949
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1 5

<210> 990

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1 5

<210> 991

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<210> 992

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<210> 993

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<400> 993

Leu Gln His Asn Asn Tyr Pro Phe Thr
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1 5

<210> 1009

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<210> 1011
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<210> 1012
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<400> 1023

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<210> 1028
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1 5

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1 5

<210> 1053
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1 5

<210> 1060
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1 5

<210> 1061
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<212> PRT
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1 5

<210> 1062
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<400> 1062
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 1 5

<210> 1063
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<400> 1063
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 1 5

<210> 1064
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 1 5

<210> 1065
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<400> 1065
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 1 5

<210> 1066
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<400> 1066
 Ala Thr Phe Asp Glu Ser Leu Ser Gly Pro Val
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<210> 1067
 <211> 11
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<220>

<223> Description of Artificial Sequence: Synthetic peptide

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<210> 1068

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1068

Ala Thr Phe Asp Glu Ser Leu Ser Gly Pro Val
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<210> 1069

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

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1 5 10

<210> 1070

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1070

Ala Thr Phe Asp Asp Ser Leu Asn Gly Pro Val
1 5 10

<210> 1071

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1071

Ala Thr Phe Asp Asp Ser Leu Asn Gly Pro Val
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<210> 1072

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1072

Ala Thr Phe Asp Glu Ser Leu Asn Gly Pro Val
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<210> 1073

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

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Ala Thr Phe Asp Asp Ser Leu Gln Gly Pro Val
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<210> 1074

<211> 11

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1074

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<210> 1075

<211> 11

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Ala Thr Phe Asp Asp Ser Leu Asn Ala Pro Val
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<210> 1076

<211> 11

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Ala Thr Phe Asp Ser Ser Leu Asn Gly Pro Val
1 5 10

<210> 1077

<211> 11

<212> PRT
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<220>
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 1 5 10

<210> 1078
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<220>
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<210> 1079
 <211> 11
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<400> 1079
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<210> 1080
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<220>
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<400> 1080
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<210> 1081
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 <212> PRT
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<400> 1081
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 1 5

<210> 1082
 <211> 11
 <212> PRT
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<220>
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<400> 1082
 Ala Thr Phe Asp Ser Ser Leu Ser Gly Pro Val
 1 5 10

<210> 1083
 <211> 9
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1083
 Gln Gln Ser Tyr Ser Thr Leu Ile Ser
 1 5

<210> 1084
 <211> 11
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1084
 Gly Thr Trp Asp Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1085
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1085
 Gln Gln Ser Tyr Ser Thr Leu Ile Ser
 1 5

<210> 1086
 <211> 9
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1086
 Gln Gln Ser Tyr Ser Thr Leu Ile Ser
 1 5

<210> 1087
 <211> 9
 <212> PRT
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<220>
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<400> 1087
 Gln Gln Ser Tyr Ser Thr Leu Ile Ser
 1 5

<210> 1088
 <211> 9
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<400> 1088
 Gln Gln Ser Tyr Ser Thr Leu Ile Ser
 1 5

<210> 1089
 <211> 9
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<220>
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<400> 1089
 Gln Gln Ser Tyr Ser Thr Leu Ile Ser
 1 5

<210> 1090
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<400> 1090
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 1 5

<210> 1091
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<220>
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 Gly Thr Trp Asp Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1092
 <211> 11
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<220>
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 1 5 10

<210> 1093
 <211> 11
 <212> PRT
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<220>
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<400> 1093
 Gly Thr Trp Asp Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1094
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<400> 1094
 Gly Thr Phe Glu Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1095
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<220>
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 Gly Thr Trp Asp Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1096
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1096
 Gly Thr Trp Asp Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1097
 <211> 11
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<400> 1097
 Gly Thr Trp Asp Ser Ser Leu Ser Ala Val Val
 1 5 10

<210> 1098
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 1 5 10

<210> 1099
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 1 5

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<400> 1100
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 1 5

<210> 1101
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<220>

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<210> 1102
<211> 5
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<220>
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1 5

<210> 1103
<211> 5
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<220>
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<400> 1103
Ser Tyr Gly Met His
1 5

<210> 1104
<211> 5
<212> PRT
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<220>
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<400> 1104
Gly Tyr Tyr Ile His
1 5

<210> 1105
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<210> 1106
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<210> 1107

<211> 5

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<210> 1108

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<223> Description of Artificial Sequence: Synthetic peptide

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<210> 1109

<211> 5

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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<210> 1110

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1 5

<210> 1111

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1 5

<210> 1112
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<210> 1113
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<220>
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<400> 1113
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1 5

<210> 1114
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<220>
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<400> 1114
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1 5

<210> 1115
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<400> 1115
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1 5

<210> 1116
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<220>
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1 5

<210> 1117
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<220>
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<400> 1117
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1 5

<210> 1118
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1 5

<210> 1119
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1 5

<210> 1120
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<210> 1121
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<220>
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<210> 1122
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<220>
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1 5

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<400> 1123
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1 5

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1 5

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<400> 1125

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1 5

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peptide

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1 5

<210> 1127
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peptide

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1 5

<210> 1128
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1 5

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<220>
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peptide

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1 5

<210> 1130
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peptide

<400> 1130
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1 5

<210> 1131
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peptide

<400> 1131
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1 5

<210> 1132
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<212> PRT
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peptide

<400> 1132
Asn Phe Gly Met His
1 5

<210> 1133
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peptide

<400> 1133
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1 5

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peptide

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1 5

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1 5

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1 5

<210> 1137
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1 5

<210> 1138
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1260
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1261
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1261
 Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1262
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1262
 Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1263
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1263
 Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1264
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 1264
 Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1265
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1265
 Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1 5 10 15

<210> 1266
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1266
 Ala Ile Trp Phe Asp Gly Ser Asp Lys Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1267
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1267
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1268
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 1268
Ala Ile Trp Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 1269
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1269
Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1270
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1270
Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1271
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1271
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1272
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1272
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 1273
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1273
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1274
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1274
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1275
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1275
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1276
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 1276
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1277
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1277
Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1278
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1278
Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1279
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1279
Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1280
<211> 17
<212> PRT
<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1280

Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 1281

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1281

Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1282

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1282

Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1283

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1283

Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

4358741_1

<210> 1284
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1284
 Val Ile Trp Tyr Asp Gly Ser Asn Glu Asn Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1285
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1285
 Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1286
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1286
 Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1287
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1287
 Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1288
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1288
 Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1289
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1289
 Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1290
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1290
 Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1291
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1291

4358741_1

Val	Ile	Trp	Tyr	Asp	Ala	Ser	Asn	Glu	Asn	Tyr	Ala	Asp	Ala	Val	Lys
1				5					10					15	

Gly

<210> 1292
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Glu	Asn	Tyr	Ala	Asp	Ala	Val	Lys
1				5					10					15	

Gly

<210> 1293
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Val	Ile	Trp	Tyr	Asp	Ala	Ser	Asn	Glu	Asn	Tyr	Ala	Asp	Ser	Val	Lys
1				5					10					15	

Gly

<210> 1294
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Val	Ile	Trp	Tyr	Asp	Ala	Ser	Asn	Glu	Asn	Tyr	Ala	Asp	Ala	Val	Lys
1				5					10					15	

Gly

<210> 1295
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1295

Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1296

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1296

Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1297

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1297

Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1298

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1298

Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1299

<211> 17

4358741_1

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1299
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1300
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1300
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1301
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1301
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1302
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1302
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

4358741_1

<210> 1303
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1303
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1304
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1304
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1305
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1305
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1306
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1306
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1307
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1307
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1308
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1308
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1309
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1309
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1310
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 1310
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 1311
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1311
Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1312
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1312
Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1313
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1313
Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1314
<211> 17
<212> PRT
<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1314

Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1315

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1315

Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1316

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1316

Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1317

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1317

Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

4358741_1

<210> 1318
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1318
 Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1319
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1319
 Ala Ile Trp Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1320
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1320
 Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1321
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1321
 Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1322
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1322
 Ala Ile Trp Tyr Asp Ala Asn Asn Lys Tyr Tyr Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1323
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1323
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Glu Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1324
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1324
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Glu Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1325
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1325

4358741_1

Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Tyr	Tyr	Glu	Asp	Ala	Val	Lys
1				5					10					15	

Gly

<210> 1326
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1326

Val	Ile	Trp	Tyr	Asp	Ala	Ser	Asn	Lys	Tyr	Tyr	Glu	Asp	Ser	Val	Lys
1				5					10					15	

Gly

<210> 1327
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1327

Ala	Ile	Trp	Phe	Asp	Ala	Ser	Asp	Lys	Tyr	Tyr	Ala	Asp	Ala	Val	Lys
1				5					10					15	

Gly

<210> 1328
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1328

Ala	Ile	Trp	Phe	Asp	Ala	Ser	Asp	Lys	Tyr	Tyr	Ala	Asp	Ser	Val	Lys
1				5					10					15	

Gly

<210> 1329
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1329

Ala Ile Trp Phe Asp Gly Ser Asp Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1330

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1330

Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1331

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1331

Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1332

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1332

Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1333

<211> 17

4358741_1

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1333
Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1334
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1334
Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1335
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1335
Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1336
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1336
Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1337
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1337

Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1338

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1338

Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1339

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1339

Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1340

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1340

Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1341

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1341

Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1342

<211> 17

<212> PRT

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1342

Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

<210> 1343

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1343

Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

<210> 1344

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1344

Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

<210> 1345

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1345

Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

4358741_1

<210> 1346
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1346
 Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1347
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1347
 Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1348
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1348
 Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1349
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1349
 Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1350
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1350
 Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1351
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1351
 Trp Ile Asn Pro Asp Ala Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1352
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1352
 Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1353
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1353

4358741_1
 Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1354
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1354
 Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1355
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1355
 Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1356
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1356
 Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1357
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1357

Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 1358

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1358

Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 1359

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1359

Trp Ile Ser Pro Asn Ser Gly Asp Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 1360

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1360

Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 1361

<211> 17

4358741_1

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1361
Trp Ile Ser Pro Asn Ser Gly Glu Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 1362
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1362
Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

<210> 1363
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1363
Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

<210> 1364
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1364
Trp Ile Asn Pro Asp Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
1 5 10 15

Gly

4358741_1

<210> 1365
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1365
 Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1366
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1366
 Trp Ile Asn Pro Glu Ser Gly Gly Thr Asp Tyr Ser Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 1367
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1367
 Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1368
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1368
 Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1369
 <211> 17
 <212> PRT
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<220>
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<400> 1369
 Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1370
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1370
 Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1371
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1371
 Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1372
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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4358741_1

<400> 1372
 Trp Ile Ser Pro Asn Gln Gly Asp Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1373
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1373
 Trp Ile Ser Pro Asn Asn Gly Glu Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1374
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1374
 Trp Ile Ser Pro Asn Gln Gly Glu Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1375
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1375
 Trp Ile Ser Pro Asn Asn Gly Asp Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1376
 <211> 17
 <212> PRT
 <213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1376

Trp	Ile	Ser	Pro	Asn	Gln	Gly	Asp	Thr	Asn	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Asp

<210> 1377

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1377

Trp	Ile	Ser	Pro	Asn	Asn	Gly	Glu	Thr	Asn	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Asp

<210> 1378

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1378

Trp	Ile	Ser	Pro	Asn	Gln	Gly	Glu	Thr	Asn	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Asp

<210> 1379

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1379

Trp	Ile	Ser	Pro	Asn	Gln	Gly	Glu	Thr	Asn	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Asp

4358741_1

<210> 1380
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1380
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1381
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1381
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1382
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1382
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1383
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1383
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1384
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1384
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1385
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1385
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1386
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1386
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1387
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1387

4358741_1
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1388
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1388
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1389
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1389
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1390
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 1390
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1391
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1391

Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 1392

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1392

Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 1393

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1393

Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 1394

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1394

Val Ile Trp Tyr Asp Ala Ser Asn Glu Asn Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1395

<211> 17

4358741_1

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1395
Val Ile Trp Tyr Asp Ala Ser Asn Lys Tyr Tyr Ala Asp Ala Val Lys
1 5 10 15

Gly

<210> 1396
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1396
Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 1397
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1397
Val Ile Trp Tyr Asp Gly Ser Asn Lys Phe His Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 1398
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1398
Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

4358741_1

<210> 1399
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1399
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1400
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1400
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1401
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1401
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1402
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1402
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1403
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1403
 Val Ile Trp Tyr Asp Ala Ser Asn Lys Phe His Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1404
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1404
 Val Ile Trp Tyr Asp Gly Ser Asn Lys Phe His Ala Asp Ala Val Lys
 1 5 10 15

Gly

<210> 1405
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1405
 Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1406
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 1406
 Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1407
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1407
 Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1408
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1408
 Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1409
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1409
 Trp Met Asn Pro Asn Ser Gly Gly Thr Gly Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1410
 <211> 17
 <212> PRT
 <213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1410

Trp	Met	Asn	Pro	Asn	Ser	Gly	Asn	Thr	Gly	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Gly

<210> 1411

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1411

Trp	Met	Asn	Pro	Asn	Ser	Gly	Gly	Thr	Gly	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Gly

<210> 1412

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1412

Trp	Met	Asn	Pro	Asn	Ser	Gly	Gly	Thr	Gly	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Gly

<210> 1413

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1413

Val	Ile	Trp	Tyr	Asp	Ala	Ser	Asn	Lys	Phe	His	Ala	Asp	Ala	Val	Lys
1				5					10					15	

Gly

4358741_1

<210> 1414
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1414
 Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1415
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1415
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1416
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1416
 Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr
 1 5 10

<210> 1417
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1417
 Asp Arg Thr Ile Phe Gly Val Val Leu Asp Tyr
 1 5 10

<210> 1418
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

4358741_1

<400> 1418
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1419
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1419
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1420
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1420
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1421
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1421
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1422
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1422
 Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
 1 5 10 15

<210> 1423
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1423
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1424
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1424
 Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr
 1 5 10

<210> 1425
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1425
 Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
 1 5 10

<210> 1426
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1426
 Asp Val Ala Val Ala Gly Phe Asp Tyr
 1 5

<210> 1427
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1427
 Asp Val Ala Val Ala Gly Phe Asp Tyr
 1 5

<210> 1428
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1428

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
1				5					10		

<210> 1429

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1429

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
1				5					10		

<210> 1430

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1430

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
1				5					10		

<210> 1431

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1431

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
1				5					10		

<210> 1432

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1432

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
1				5					10		

<210> 1433

<211> 12

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1433
 Asp Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr
 1 5 10

<210> 1434
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1434
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1435
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1435
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1436
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1436
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1437
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1437
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

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<210> 1438
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1438
Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
1 5 10

<210> 1439
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1439
Asp Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
1 5 10

<210> 1440
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1440
Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
1 5 10

<210> 1441
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1441
Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
1 5 10

<210> 1442
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1442
Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
1 5 10

<210> 1443
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1443
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1444
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1444
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1445
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1445
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1446
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 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1447
 <211> 12
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<220>
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<400> 1447

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Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1448
 <211> 12
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 1 5 10

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<210> 1450
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 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
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<210> 1451
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 Asp Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
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<210> 1452
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<220>
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<400> 1452
 Asp Gly Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1453
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<220>
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<400> 1458
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 1 5 10

<210> 1459
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 1 5 10

<210> 1460
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<400> 1460
 Asp Arg Thr Ile Phe Gly Val Val Leu Asp Tyr
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<210> 1461
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 Asp Arg Thr Ile Phe Gly Val Val Leu Asp Tyr
 1 5 10

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<210> 1463

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<400> 1463

Asp	Arg	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
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<210> 1464

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<400> 1464

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
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<210> 1465

<211> 12

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<400> 1465

Asp	Arg	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
1				5					10		

<210> 1466

<211> 12

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1466

Asp	Gly	Thr	Ile	Phe	Gly	Val	Leu	Leu	Gly	Asp	Tyr
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<210> 1467

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1467

Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr
 1 5 10

<210> 1468

<211> 12

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1468

Asp Gly Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr
 1 5 10

<210> 1469

<211> 11

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1469

Asp Arg Thr Ile Phe Gly val val Leu Glu Tyr
 1 5 10

<210> 1470

<211> 11

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1470

Asp Arg Thr Ile Phe Gly val val Leu Glu Tyr
 1 5 10

<210> 1471

<211> 11

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1471

Asp Arg Thr Ile Phe Gly val val Leu Glu Tyr
 1 5 10

<210> 1472
<211> 11
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<400> 1472
Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
1 5 10

<210> 1473
<211> 11
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<400> 1473
Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
1 5 10

<210> 1474
<211> 11
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<220>
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<400> 1474
Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
1 5 10

<210> 1475
<211> 11
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<220>
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<400> 1475
Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
1 5 10

<210> 1476
<211> 11
<212> PRT
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<220>
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<400> 1476
Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
1 5 10

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 <211> 11
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<220>
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<400> 1477
 Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
 1 5 10

<210> 1478
 <211> 11
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<220>
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<400> 1478
 Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
 1 5 10

<210> 1479
 <211> 11
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<400> 1479
 Asp Arg Thr Ile Phe Gly Val Val Leu Glu Tyr
 1 5 10

<210> 1480
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<220>
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<400> 1480
 Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr
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<210> 1481
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<220>
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<400> 1481

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 Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr
 1 5 10

<210> 1482
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<220>
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<400> 1482
 Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr
 1 5 10

<210> 1483
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<220>
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<400> 1483
 Gly Ile Thr Ile Phe Gly His Gly Phe Glu Tyr
 1 5 10

<210> 1484
 <211> 11
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 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1485
 <211> 11
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<220>
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<400> 1485
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 1 5 10

<210> 1486
 <211> 11
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<220>
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<400> 1486
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1487
 <211> 11
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<220>
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<400> 1487
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1488
 <211> 11
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<400> 1488
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1489
 <211> 11
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<220>
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<400> 1489
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1490
 <211> 11
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<220>
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<400> 1490
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1491
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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1491
 Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr
 1 5 10

<210> 1492
 <211> 16
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<220>
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<400> 1492
 Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
 1 5 10 15

<210> 1493
 <211> 16
 <212> PRT
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<220>
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<400> 1493
 Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
 1 5 10 15

<210> 1494
 <211> 16
 <212> PRT
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<220>
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<400> 1494
 Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
 1 5 10 15

<210> 1495
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 <212> PRT
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<220>
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<400> 1495
 Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
 1 5 10 15

<210> 1496
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 <212> PRT
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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1496

Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
1 5 10 15

<210> 1497

<211> 16

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1497

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1 5 10 15

<210> 1498

<211> 16

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1498

Asp Arg Ile Thr Ile Phe Gly Val Val Met Gly Gly Gly Met Asp Val
1 5 10 15

<210> 1499

<211> 14

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1499

Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1500

<211> 14

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 1500

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1 5 10

<210> 1501

<211> 14

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<400> 1501
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1502
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 <212> PRT
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<220>
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<400> 1502
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1503
 <211> 14
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<220>
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<400> 1503
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1504
 <211> 14
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<220>
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<400> 1504
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1505
 <211> 14
 <212> PRT
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<220>
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<400> 1505
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1506
 <211> 14
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1506
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1507
 <211> 14
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1507
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1508
 <211> 14
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1508
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1509
 <211> 14
 <212> PRT
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<220>
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<400> 1509
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1510
 <211> 14
 <212> PRT
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<220>
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<400> 1510
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1511
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 <212> PRT
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<220>
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<400> 1511
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1512
 <211> 14
 <212> PRT
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<400> 1512
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1513
 <211> 14
 <212> PRT
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<220>
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<400> 1513
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1514
 <211> 14
 <212> PRT
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<220>
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<400> 1514
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1515
 <211> 14
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1515

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Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1516
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1516
Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1517
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1517
Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1518
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1518
Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1519
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1519
Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1520
<211> 14
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<220>
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peptide

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<400> 1520
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1521
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 <212> PRT
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<220>
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<400> 1521
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1522
 <211> 14
 <212> PRT
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<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1522
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1523
 <211> 14
 <212> PRT
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<220>
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<400> 1523
 Glu Ala Thr Ile Phe Gly Met Val Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1524
 <211> 14
 <212> PRT
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<220>
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<400> 1524
 Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
 1 5 10

<210> 1525
 <211> 14
 <212> PRT
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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1525

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1526

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1526

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1527

<211> 14

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1527

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1528

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1528

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1529

<211> 14

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1529

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1530

<211> 14

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1530

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1531

<211> 14

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1531

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1532

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1532

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1533

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1533

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1534

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1534

Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1535

<211> 14

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<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1535
Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1536
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1536
Glu Ala Thr Ile Phe Gly Met Leu Ile Val Pro Phe Asp Tyr
1 5 10

<210> 1537
<211> 19
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1537
Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1538
<211> 19
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1538
Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1539
<211> 19
<212> PRT
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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1539

Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1540

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1540

Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1541

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1541

Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1542

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1542

Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1543

<211> 19

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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1543
Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1544
<211> 19
<212> PRT
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<220>
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peptide

<400> 1544
Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1545
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1545
Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 1546
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 1546
Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

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<210> 1547
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1547
 Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1548
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1548
 Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1549
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1549
 Gly Gly Asp Tyr Val Phe Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1550
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1550
 Gly Gly Asp Tyr Val Phe Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1551
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1551
 Asp Arg Thr Ile Phe Gly Val Val Leu Gly Asp Tyr
 1 5 10

<210> 1552
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1552
 Asp Arg Thr Ile Phe Gly Val Leu Leu Gly Asp Tyr
 1 5 10

<210> 1553
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1553
 Gly Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro His Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1554
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1554
 Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile
 1 5 10

<210> 1555
 <211> 20

4358741_1

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1555
 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
 1 5 10 15

Gly Met Asp Val
 20

<210> 1556
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1556
 Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile
 1 5 10

<210> 1557
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1557
 Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile
 1 5 10

<210> 1558
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1558
 Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile
 1 5 10

<210> 1559
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 1559

4358741_1

Gly	Lys	Val	Ala	Gly	Met	Pro	Glu	Ala	Phe	Glu	Ile
1				5					10		

<210> 1560
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Gly	Lys	Val	Ala	Gly	Met	Pro	Glu	Ala	Phe	Glu	Ile
1				5					10		

<210> 1561
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Gly	Lys	Val	Ala	Gly	Met	Pro	Glu	Ala	Phe	Glu	Ile
1				5					10		

<210> 1562
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Gly	Gly	Asp	Tyr	Val	Trp	Gly	Ser	Tyr	Arg	Pro	Tyr	Tyr	Tyr	Tyr	Tyr
1				5					10					15	

Gly	Met	Asp	Val
			20

<210> 1563
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Gly	Gly	Asp	Tyr	Val	Trp	Gly	Ser	Tyr	Arg	Pro	Tyr	Tyr	Tyr	Tyr	Tyr
1				5					10					15	

Gly	Met	Asp	Val
			20

4358741_1

<210> 1564
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic peptide
 <400> 1564
 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
 1 5 10 15

Gly Met Asp Val
 20

<210> 1565
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic peptide
 <400> 1565
 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
 1 5 10 15

Gly Met Asp Val
 20

<210> 1566
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic peptide
 <400> 1566
 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
 1 5 10 15

Gly Met Asp Val
 20

<210> 1567
 <211> 20
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic peptide
 <400> 1567
 Gly Gly Asp Tyr Val Trp Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
 1 5 10 15

Gly Met Asp Val
20

<210> 1568
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1568
Gly Gly Asp Tyr Val Phe Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
1 5 10 15

Gly Met Asp Val
20

<210> 1569
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1569
Gly Gly Asp Tyr Val Phe Gly Ser Tyr Arg Pro Tyr Tyr Tyr Tyr Tyr
1 5 10 15

Gly Met Asp Val
20

<210> 1570
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 1570
Gly Lys Val Ala Gly Met Pro Glu Ala Phe Glu Ile
1 5 10

<210> 1571
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1571
cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc 120

4358741_1

ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tggggtccag 240
tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgaa tgggtccgga 300
ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1572
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1572
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctgggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
gggaccaaag tggatatcaa acga 324

<210> 1573
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1573
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctgggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
gggaccaaag tggatatcaa acga 324

<210> 1574
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1574
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatcttaa attgggtatca gcagaaacca 120

4358741_1

gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg	300
accaaggtgg agatcaagcg a	321

<210> 1575
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1575	
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtagcagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1576
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1576	
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtagcagc agaaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1577
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1577	
gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60

4358741_1

atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1578

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1578

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1579

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1579

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
 cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag 240
 cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc 300
 ggagggacca aggtggagat caaacga 327

<210> 1580

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1580

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60

4358741_1

ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct	120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc	180
agggtcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acga	324

<210> 1581
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1581	
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca	120
gggaaagccc ctaaagcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct	240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccct	300
gggaccaaag tggatgtcaa acga	324

<210> 1582
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1582	
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg	300
accaaagtgg atatcaaacg a	321

<210> 1583
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1583

4358741_1

gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgtc gggcgagtca gggctttatc atctggtttag cctggatatca gcagaaaccg 120
 gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtggctc tgggacagat ttcactctca ccatcagcag cctacagcct 240
 gaagattttg caacttacta ttgtcaacag actaacagtt tccctccgac gttcggccaa 300
 gggaccaagg tggaatcaa acga 324

<210> 1584
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1584
 gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgtc gggcgagtca gggctttatc atctggtttag cctggatatca gcagaaaccg 120
 gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtggctc tgggacagat ttcactctca ccatcagcag cctacagcct 240
 gaagattttg caacttacta ttgtcaacag actaacagtt tccctccgac gttcggccaa 300
 gggaccaagg tggaatcaa acga 324

<210> 1585
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1585
 gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gggcattaga aatgagtttag gctggatatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
 gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa 300
 gggaccaaaag tggatgtcaa acga 324

<210> 1586
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1586
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa 300
gggaccaaag tggatgtcaa acga 324

<210> 1587
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1587
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa 300
gggaccaaag tggatgtcaa acga 324

<210> 1588
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1588
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccct 300
gggaccaaag tggatgtcaa acga 324

<210> 1589
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1589
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca 120
gggaaagccc ctaaagcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa 300
gggaccaaag tggatgtcaa acga 324

<210> 1590
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1590
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa 300
gggaccaaag tggatgtcaa acga 324

<210> 1591
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1591
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1592
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

4358741_1

polynucleotide

<400> 1592
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctgggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1593
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1593
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctgggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
gggaccaaag tggatatcaa acga 324

<210> 1594
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1594
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctgggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1595
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1595
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1596
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1596
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1597
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1597
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1598
<211> 324
<212> DNA
<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1598

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca ccagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1599

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1599

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1600

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1600

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1601

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1601

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggatatca ccagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1602

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1602

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggatatca acagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1603

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1603

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggatatca acagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1604

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1604

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca ccagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1605

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1605

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca ccagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1606

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1606

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acga	324

<210> 1607

<211> 324

4358741_1

<212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1607
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatcttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acga 324

<210> 1608
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1608
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatcttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
 gggaccaaag tggatatcaa acga 324

<210> 1609
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1609
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatcttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acga 324

<210> 1610

4358741_1

<211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1610
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1611
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1611
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1612
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1612
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct 240
 gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

4358741_1

<210> 1613
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1613
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1614
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1614
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
 gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1615
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1615
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1616
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1616
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
 gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1617
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1617
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1618
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1618
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg a 321

<210> 1619
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1619
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatcttag gctggatatca gcagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acga 324

<210> 1620
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1620
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatcttag gctggatatca gcagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acga 324

<210> 1621
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1621
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatcttag gctggatatca gcagaaacca 120
 gggaaagccc ctaagtcctt gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300

gggaccaaag tggatatcaa acga

324

<210> 1622

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1622

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60

atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180

aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240

gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300

gggaccaaag tggatatcaa acga 324

<210> 1623

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1623

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60

atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180

aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240

gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300

gggaccaaag tggatatcaa acga 324

<210> 1624

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1624

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60

atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180

aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240

gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300

gggaccaaag tggatatcaa acga 324

<210> 1625
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1625
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatcttag gctggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggcctt 300
 gggaccaaag tggatatcaa acga 324

<210> 1626
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1626
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg 300
 accaaagtgg atatcaaag a 321

<210> 1627
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1627
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240

4358741_1

gaagatattg caacatatta ctgtcaacag tatgatgac tattcacttt cggccctggg 300
 accaaagtgg atatcaaacg a 321

<210> 1628
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1628
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatgac tattcacttt cggccctggg 300
 accaaagtgg atatcaaacg a 321

<210> 1629
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1629
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatgac tattcacttt cggccctggg 300
 accaaagtgg atatcaaacg a 321

<210> 1630
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1630
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240

4358741_1

gaagatattg caacatatta ctgtcaacag tatgatgac tttcacttt cggccctggg 300
accaaagtgg atatcaaacg a 321

<210> 1631
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1631
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgatgac tttcacttt cggccctggg 300
accaaagtgg atatcaaacg a 321

<210> 1632
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1632
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgatgac tttcacttt cggccctggg 300
accaaagtgg atatcaaacg a 321

<210> 1633
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1633
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180

4358741_1

aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg 300
accaaagtgg atatcaaacg a 321

<210> 1634
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1634
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg 300
accaaagtgg atatcaaacg a 321

<210> 1635
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1635
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccaaggg 300
accaaagtgg atatcaaacg a 321

<210> 1636
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1636
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180

4358741_1

aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct	240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccaaggg	300
accaaagtgg atatcaaacg a	321

<210> 1637
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1637	
gaaatttgtg tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gatttttacc agcacctact tagcctggta ccagcagaaa	120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag	240
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa	300
gggacacgac tggagattaa acga	324

<210> 1638
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1638	
gaaatttgtg tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gatttttacc agcacctact tagcctggta ccagcagaaa	120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag	240
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa	300
gggacacgac tggagattaa acga	324

<210> 1639
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1639	
gaaatttgtg tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gatttttacc agcacctact tagcctggta ccagcagaaa	120

4358741_1

cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag 240
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 1640

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1640

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gatttttacc agcacctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag 240
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 1641

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1641

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1642

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1642

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcagaaacct 120

4358741_1

ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acga	324

<210> 1643
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1643	
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct	120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acga	324

<210> 1644
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1644	
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct	120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc	180
agggtcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acga	324

<210> 1645
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1645	
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc	60

4358741_1

ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctggagcct 240
gaagattttg cagtttatta ctgtcagcag tataataact tccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1646
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1646
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctggagcct 240
gaagattttg cagtttatta ctgtcagcag tataataact atcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1647
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1647
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctggagcct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1648
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1648
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60

4358741_1

ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct	120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctggagcct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acga	324

<210> 1649
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1649	
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa	120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag	240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc	300
ggagggacca aggtggagat caaacga	327

<210> 1650
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1650	
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa	120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag	240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc	300
ggagggacca aggtggagat caaacga	327

<210> 1651
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1651

4358741_1

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
 cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatcca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgatgatt ttgcagtgta ttactgtcag cagtatggta gttcaccgct cactttcggc 300
 ggagggacca aggtggagat caaacga 327

<210> 1652

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1652

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
 cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatcca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgatgatt ttgcagtgta ttactgtcag cagtatggta gttcaccgct cactttcggc 300
 ggagggacca aggtggagat caaacga 327

<210> 1653

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1653

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
 cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatcca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgatgatt ttgcagtgta ttactgtcag cagtatggta gttcaccgct cactttcggc 300
 ggagggacca aggtggagat caaacga 327

<210> 1654

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

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<400> 1654
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc      60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa      120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca      180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag      240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc      300
ggagggacca aggtggagat caaacga                                           327

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<210> 1655
<211> 327
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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<400> 1655
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc      60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa      120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca      180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag      240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc      300
ggagggacca aggtggagat caaacga                                           327

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<210> 1656
<211> 342
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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<400> 1656
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct      120
tggtaccagc agcaaccagg acatcctcct aagctgctca tttactgggc atctaccggg      180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact      300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga                          342

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<210> 1657
<211> 342
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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4358741_1

<400> 1657
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgtctca ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1658
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1658
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgtctca ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1659
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1659
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgtctca ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1660
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

4358741_1

polynucleotide

<400> 1660
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1661
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1661
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1662
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1662
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1663
<211> 342
<212> DNA
<213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1663
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1664
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1664
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1665
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1665
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
tggtaccagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1666
<211> 342
<212> DNA
<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1666

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acaacctcct aagctgtctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1667

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1667

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgtctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1668

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1668

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgtctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1669

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1669

gacatcgtga tgacccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1670

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1670

gacatcgtga tgacccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1671

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1671

gacatcgtga tgacccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1672

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1672

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagggtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1673

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1673

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagggtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1674

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1674

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagggtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aaactgctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1675

<211> 342

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<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1675

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1676

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1676

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1677

<211> 342

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1677

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga	342

<210> 1678

<211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1678
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
 tggtagcagc agaaaccagg acatcctcct aagctgctca ttactgggc atctaccg 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1679
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1679
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
 tggtagcagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccg 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1680
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1680
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
 tggtagcagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccg 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1681
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1681
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac ga 342

<210> 1682
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1682
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac ga 342

<210> 1683
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1683
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac ga 342

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<210> 1684
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1684
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tgggtaccagc agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccgga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac ga 342

<210> 1685
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1685
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tgggtaccagc agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccgga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac ga 342

<210> 1686
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1686
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tgggtaccagc agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccgga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac ga 342

<210> 1687
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1687
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccgca 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtagt 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1688
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1688
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccgca 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtagt 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1689
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1689
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgctca ttctactggac ttctaccgca 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtagt 300

ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1690
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1690
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgtca tttactggac ttctaccga 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1691
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1691
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aacctgtca tttactggac ttctaccga 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1692
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1692
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aaactgtca tttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300

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ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1693
 <211> 342
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1693
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcagc agaaaccagg acagcctcct aaactgctca ttactggac ttctaccga 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac ga 342

<210> 1694
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1694
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtcaaactg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgag tgggtccgga 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1695
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1695
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtcaaactg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240

4358741_1

tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgca aggtccggta 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1696
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1696
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgag tggtcaggta 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1697
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1697
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgca aggtccggta 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1698
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1698
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtcaactg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240

4358741_1

tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgaa tgggtccggt	300
ttcggcggag ggaccaagct gaccgtccta ggt	333

<210> 1699
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1699	
cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag gggtcaccatc	60
tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc	120
ccaggaacgg cccccaaact cctcatctat actaataatc agcgccctc aggggtccct	180
gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggtccag	240
tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgaa tgggtccggt	300
ttcggcggag ggaccaagct gaccgtccta ggt	333

<210> 1700
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1700	
cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag gggtcaccatc	60
tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc	120
ccaggaacgg cccccaaact cctcatctat actaataatc agcgccctc aggggtccct	180
gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggtccag	240
tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgaa tgggtccggt	300
ttcggcggag ggaccaagct gaccgtccta ggt	333

<210> 1701
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1701	
cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag gggtcaccatc	60
tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc	120
ccaggaacgg cccccaaact cctcatctat actaataatc agcgccctc aggggtccct	180

4358741_1

gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgca aggtccggta 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1702
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1702
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgag tgggtccggta 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1703
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1703
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgaa tgctccggta 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1704
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1704
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180

4358741_1

gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgata gcagcctgaa tggctccgga 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1705
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1705
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgata gcagcctgaa tgctccgga 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1706
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1706
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgata gcagcctgaa tgctccgga 300
 ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1707
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1707
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtcaaactg taaactggta ccagcacctc 120

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ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tggggtccag 240
tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgag tgggtccgga 300
ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1708

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1708

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggaccttaga aattatcttag gctggtatca acagaaacca 120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1709

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1709

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
gggaccaaag tggatatcaa acga 324

<210> 1710

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1710

cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcaactc 120

4358741_1

ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tgggtccag 240
tctgaggatg aggctgatta tttctgtgca acattcgata gcagcctgag tgggtccggt 300
ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 1711
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1711
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
gggaaagccc ctgagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
agattcagtg gcagtggttc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag 300
gggaccaagc tggagatcac acga 324

<210> 1712
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1712
cagtctgtgt tgacgcagcc gccctcagtg tctgcgggcc caggacagaa ggtcaccatc 60
tcctgctctg gaagcagctc caacattgga aataattatg tatcctggta tgagcagttc 120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tgggcatcac cggactccag 240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta 300
ttcggcggag ggaccaaact gaccgtccta ggt 333

<210> 1713
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1713
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60

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atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtg gcagtggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgacag ttttggccag 300
 gggaccaagc tggagatcaa acga 324

<210> 1714
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1714
 gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
 atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtg gcagtggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgacag ttttggccag 300
 gggaccaagc tggagatcaa acga 324

<210> 1715
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1715
 gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
 atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtg gcagtggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgacag ttttggccag 300
 gggaccaagc tggagatcac acga 324

<210> 1716
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1716
 gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60

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atcacttgcc gggcaagtca gaccattagc aggtttttaa attggtatca gcagaaacct 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtgc gcagtgggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag 300
 gggaccaagc tggagatcaa acga 324

<210> 1717
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1717
 gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
 atcacttgcc gggcaagtca gaccattagc aggtttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtgc gcagtgggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag 300
 gggaccaagc tggagatcaa acga 324

<210> 1718
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1718
 gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
 atcacttgcc gggcaagtca gaccattagc aggtttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtgc gcagtgggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag 300
 gggaccaagc tggagatcaa acga 324

<210> 1719
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1719

4358741_1

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cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc      60
tcctgctctg gaagcagctc caacattgga aataattatg ttccttggtg tcagcagctc      120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tgggcatcac cggactccag      240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta      300
ttcggcggag ggaccaaact gaccgtccta ggt                                     333

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<210> 1720

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1720

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cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc      60
tcctgctctg gaagcagctc caacattgga aataattatg ttccttggtg tcagcagctc      120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tgggcatcac cggactccag      240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta      300
ttcggcggag ggaccaaact gaccgtccta ggt                                     333

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<210> 1721

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1721

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cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc      60
tcctgctctg gaagcagctc caacattgga aataattatg ttccttggtg tgagcagttc      120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tgggcatcac cggactccag      240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta      300
ttcggcggag ggaccaaact gaccgtccta ggt                                     333

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<210> 1722

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1722
cagtctgtgt tgacgcagcc gccctcagt tctgcgggccc caggacagaa ggtcaccatc 60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc 120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tggccatcac cggactccag 240
actggggacg aggccgatta ttactgcgga acattcgaaa gcagcctgag tgctgtggta 300
ttcggcggag ggaccaaact gaccgtccta ggt 333

<210> 1723
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1723
cagtctgtgt tgacgcagcc gccctcagt tctgcgggccc caggacagaa ggtcaccatc 60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc 120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tggccatcac cggactccag 240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta 300
ttcggcggag ggaccaaact gaccgtccta ggt 333

<210> 1724
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1724
cagtctgtgt tgacgcagcc gccctcagt tctgcgggccc caggacagaa ggtcaccatc 60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc 120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tggccatcac cggactccag 240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta 300
ttcggcggag ggaccaaact gaccgtccta ggt 333

<210> 1725
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1725
cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc 120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tgggcatcac cggactccag 240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta 300
ttcggcggag ggaccaaact gaccgtccta ggt 333

<210> 1726
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1726
cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc 120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tggccatcac cggactccag 240
actggggacg aggccgatta ttactgcgga acattcgaaa gcagcctgag tgctgtggta 300
ttcggcggag ggaccaaact gaccgtccta ggt 333

<210> 1727
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1727
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
agattcagtg gcagtggttc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgctcag ttttggccag 300
gggaccaagc tggagatcaa acga 324

<210> 1728
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

polynucleotide

```

<400> 1728
cagatgcagg tgggtgcagtc tgggggctgag gtgaagaagc ctggggcctc agtgaaggtc      60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc      120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat      180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac      240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg      300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa      360
gggaccacgg tcaccgtctc ctca                                             384

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<210> 1729
<211> 363
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

```

<400> 1729
caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa tgaaaactat      180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat      240
ctgcacatga acagcctgag agtcgcgac acggctgtgt attattgtgc gcgagatggg      300
acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                             363

```

```

<210> 1730
<211> 363
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

```

<400> 1730
caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat      180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cagctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg      300
acgatttttg gagtgctctt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                             363

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4358741_1

<210> 1731
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1731
 caggtgcaac tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagcgaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
 acgatttttg gagtggttct tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 1732
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1732
 caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggggtg atcaaccctg acagtgggtg cacagactat 180
 tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaa cctggtcacc 360
 gtctcctca 369

<210> 1733
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1733
 caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag gacttgagtg gatgggggtg atcaaccctg acagtgggtg cacagactat 180
 tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300

4358741_1

acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

<210> 1734
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1734
caggtgccgc tggtagcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga cacaagctat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

<210> 1735
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1735
caggtgccgc tggtagcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagtg gatgggggtg ataagcccta acaatgggtga cacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

<210> 1736
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1736
caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc 120

4358741_1

cagcaccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac 180
 tacaaccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat 300
 cgtattacga tttttggagt gggtatgggg ggcggtatgg acgtctgggg ccaagggacc 360
 acggtcaccg tctcctca 378

<210> 1737
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1737
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag catctggatt caccttcagt aactatggca tgactgggt ccgccaggct 120
 ccaggcgagg ggctggagtg ggtggcagct atatggtttg atggaagtga taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag 300
 gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 1738
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1738
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt tactttggca tgactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
 gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg 300
 acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggg caccgtctcc 360
 tca 363

<210> 1739
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1739
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
ccaggcaagg ggctggagtg ggtggcagct atatggtatg atggaaataa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
acgattttttg gagtggctct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1740
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1740
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctcaggg ctccatcagt agttactact ggagctggat ccggcagccc 120
gccgggaagg gactagagtg gattggccgt atctatacca gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatgtca atagacacgt ccaagaacca gttctccctg 240
aaactgaact ctgtgaccgc cgcgacacg gccgtgtatt actgtgagag agatgtagca 300
gtggctggct ttgactactg gggccagggg accctggtca ccgtctcctc a 351

<210> 1741
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1741
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggggg ctccatcagt agttactact ggagctggat ccggcagccc 120
gccgggaagg gactagagtg gattggccgt atctatacca gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatgtca atagacacgt ccaagaacca gttctccctg 240
aaactgaact ctgtgaccgc cgcgacacg gccgtgtatt actgtgagag agatgtagca 300
gtggctggct ttgactactg gggccagggg accctggtca ccgtctcctc a 351

<210> 1742
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

polynucleotide

```

<400> 1742
caggtgcagc tggtaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat      180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg      300
acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                                                    363

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<210> 1743
<211> 363
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

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<400> 1743
caggtgcagc tggtaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat      180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg      300
acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                                                    363

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```

<210> 1744
<211> 363
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

```

<400> 1744
caggtgcagc tggtaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat      180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg      300
acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                                                    363

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4358741_1

<210> 1745
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1745
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
 gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg 300
 acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1746
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1746
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
 gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg 300
 acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1747
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1747
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
 gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240

4358741_1

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatagg 300
 acgatttttg gagtgtcttt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1748
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1748
 caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat 240
 ctgcaaatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg 300
 acgatctttg gagtggcttt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1749
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1749
 caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat 240
 ctgcaaatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg 300
 acgatctttg gagtggcttt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1750
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1750
 caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60

4358741_1

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tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct    120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat    180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat    240
ctgcaaatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg    300
acgatctttg gagtggctct gggggactac tggggccagg gaaccctggg caccgtctcc    360
tca                                                                    363

```

<210> 1751
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

```

<400> 1751
caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc    60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct    120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat    180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat    240
ctgcacatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg    300
acgatctttg gagtggctct gggggactac tggggccagg gaaccctggg caccgtctcc    360
tca                                                                    363

```

<210> 1752
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

```

<400> 1752
caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc    60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct    120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa tgaaaactat    180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat    240
ctgcacatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg    300
acgatctttg gagtggctct gggggactac tggggccagg gaaccctggg caccgtctcc    360
tca                                                                    363

```

<210> 1753
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1753

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	cactttcagt	aactttggca	tgactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	tgaaaactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	tacgctgtat	240
ctgcaaatga	acagcctgag	agtcgaggac	acggctgtgt	attattgtgc	gcgagatagg	300
acgatctttg	gagtggctctt	gggggactac	tggggccagg	gaaccctggt	caccgtctcc	360
tca						363

<210> 1754

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1754

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	cactttcagt	aactttggca	tgactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	tgaaaactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	tacgctgtat	240
ctgcaaatga	acagcctgag	agtcgaggac	acggctgtgt	attattgtgc	gcgagatggg	300
acgatctttg	gagtggctctt	gggggactac	tggggccagg	gaaccctggt	caccgtctcc	360
tca						363

<210> 1755

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1755

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	cactttcagt	aactttggca	tgactgggt	ccgccaggcc	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atggaagtaa	tgaaaactat	180
gcagactccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
ctgcacatga	acagcctgag	agccgcggac	acggctgtgt	attactgtgc	gagagatggg	300
acgatctttg	gagtggctctt	gggggactac	tggggccagg	gaaccctggt	caccgtctcc	360

tca 363

<210> 1756
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1756
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
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 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1757
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1757
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcacatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1758
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1758
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180

4358741_1

gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1759
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1759
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1760
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1760
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcacatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1761
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1761
caggtgcagc tggtaggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcacatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
acgatctttg gagtgggtctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1762
<211> 363
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1762
caggtgcagc tggtaggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
acgatctttg gagtgggtctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1763
<211> 363
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1763
caggtgcagc tggtaggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa tgaaaactat 180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
acgatctttg gagtgggtctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1764

<211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1764
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1765
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1765
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
 acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1766
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1766
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatggg 300

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acgatctttg gagtgggtctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1767
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1767
caggtgcaac tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
gcagacgccg tgaagggccg attcaccatc tccagggaca attccaagaa cagcgtgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
acgatttttg gagtgggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1768
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1768
caggtgcaac tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
gcagacgccg tgaagggccg attcaccatc tccagcgaca attccaagaa cagcgtgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
acgatttttg gagtgggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1769
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1769
caggtgcaac tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180

4358741_1

gcagacgccg tgaagggccg attcaccatc tccagggaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
 acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1770
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1770
 caggtgcaac tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt agctatggca tgactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagggaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
 acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1771
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1771
 caggtgcaac tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt agctatggca tgactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagcgaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
 acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1772
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1772
 caggtgcaac tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt agctatggca tgactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180

4358741_1

gcagacgccg tgaagggccg attcaccatc tccagcgaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg	300
acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1773
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1773	
caggtgcaac tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagggaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg	300
acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1774
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1774	
caggtgcaac tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagggaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg	300
acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1775
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1775	
caggtgcaac tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct	120

4358741_1

ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
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ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg 300
acgatttttg gagtggttct tgactactgg ggccagggaa ccttggtcac cgtctcctca 360

<210> 1776

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1776

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
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gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg 300
acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1777

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1777

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatagg 300
acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1778

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1778
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
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gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg 300
acgatttttg gagtgctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1779
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1779
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatagg 300
acgatttttg gagtgctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1780
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1780
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg 300
acgatttttg gagtgctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1781
<211> 363

4358741_1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1781

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caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat      180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg      300
acgatttttg gagtgtcttt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                                                    363

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<210> 1782

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1782

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caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat      180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg      300
acgatttttg gagtgtcttt gggggactac tggggccagg gaaccctggt caccgtctcc      360
tca                                                                    363

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<210> 1783

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1783

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caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct      120
ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat      180
gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg      300

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4358741_1

acgatttttg gagtggcct tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1784
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1784
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggcct tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1785
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1785
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggcct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1786
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1786
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300

4358741_1

acgatttttg gagtggctct tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1787
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1787
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaataa acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggctct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1788
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1788
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaataa acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggctct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1789
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1789
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240

4358741_1

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggcctt tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1790
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1790
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atggaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggcctt tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1791
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1791
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaataa taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgatttttg gagtggcctt tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1792
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1792
 caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240

4358741_1

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgattttttg gagtgggtcct tgagtactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1793
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1793
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg 300
 acgattttttg gagtgggtcct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1794
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1794
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cagtttcagt agctatggca tgcactgggt ccgccaggct 120
 ccaggcaagg gactggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat 180
 gaagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt 240
 ctgcaagtga acagcctgag agccgaggac acggctgtgt attactgtgc gagagggatt 300
 acgattttttg gtcattgggtt tgaatattgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1795
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1795
 caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt cagtttcagt agctatggca tgcactgggt ccgccaggct 120
 ccaggcaagg gactggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180

4358741_1

gaagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt	240
ctgcaagtga acagcctgag agccgaggac acggctgtgt attactgtgc gagagggatt	300
acgatttttg gtcattgggtt tgaatattgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1796
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1796	
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt cagtttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg gactggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat	180
gaagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt	240
ctgcaagtga acagcctgag agccgaggac acggctgtgt attactgtgc gagagggatt	300
acgatttttg gtcattgggtt tgaatattgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1797
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1797	
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt cagtttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg gactggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gaagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt	240
ctgcaagtga acagcctgag agccgaggac acggctgtgt attactgtgc gagagggatt	300
acgatttttg gtcattgggtt tgaatattgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1798
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1798	
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct	120
ccaggcgagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180

4358741_1

gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag 300
 gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1799
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1799
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
 ccaggcgagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag 300
 gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1800
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1800
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
 ccaggcgagg ggctggagtg ggtggcagct atatggtttg atggaagtga taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag 300
 gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca 360

<210> 1801
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1801
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120

4358741_1

ccaggcgagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1802

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1802

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1803

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1803

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1804

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1804

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct	120

4358741_1

ccaggcgagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1805
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1805	
caggtgcagc tggaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360

<210> 1806
 <211> 378
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1806	
caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcagagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc	120
cagccccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt gggtatgggg ggcggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctca	378

<210> 1807
 <211> 378
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1807

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caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcagagac cctgtccctc      60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc      120
cagccccag ggaagggcct ggagtggatt gggtagatctt attacagtgg gagcacctac      180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc      240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat      300
cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc      360
acggtcaccg tctcctca                                     378

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<210> 1808

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1808

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caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc      60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc      120
cagccccag ggaagggcct ggagtggatt gggtagatctt attacagtgg gagcacctac      180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc      240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat      300
cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc      360
acggtcaccg tctcctca                                     378

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<210> 1809

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1809

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caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcagagac cctgtccctc      60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc      120
cagcaccag ggaagggcct ggagtggatt gggtagatctt attacagtgg gagcacctac      180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc      240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat      300
cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc      360
acggtcaccg tctcctca                                     378

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<210> 1810

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1810

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtggtggtt actactggag ctggatccgc	120
cagcaccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctca	378

<210> 1811

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1811

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtggtggtt actactggag ctggatccgc	120
cagcaccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctca	378

<210> 1812

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1812

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtggtggtt actactggag ctggatccgc	120
cagcccccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc	360

acggtcaccg tctcctca

378

<210> 1813
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1813
 caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggggtg atcaaccctg aaagtgggtg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
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 gtctcctca 369

<210> 1814
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1814
 caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggggtg atcaaccctg aaagtgggtg cacagactat 180
 tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaac cctggtcacc 360
 gtctcctca 369

<210> 1815
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1815
 caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120

4358741_1

cctggacaag ggcttgagtg gatgggggtgg atcaaccctg acgctggtgg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc 360
 gtctcctca 369

<210> 1816
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1816
 caggtgccgc tggcgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggggtgg atcaaccctg acgctggtgg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
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 acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc 360
 gtctcctca 369

<210> 1817
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1817
 caggtgcagc tggcgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggggtgg atcaaccctg acagtgggtg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc 360
 gtctcctca 369

<210> 1818
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Page 923

polynucleotide

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<400> 1818
caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc      60
tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc      120
cctggacaag ggcttgagtg gatgggggtg atcaaccctg acagtgggtg cacagactat      180
tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac      240
atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc      300
acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc      360
gtctcctca                                     369

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<210> 1819
<211> 369
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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<400> 1819
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc      60
tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc      120
cctggacaag ggcttgagtg gatgggggtg atcaaccctg acagtgggtg cacagactat      180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac      240
atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc      300
acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc      360
gtctcctca                                     369

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<210> 1820
<211> 369
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

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<400> 1820
caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc      60
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cctggacaag ggcttgagtg gatgggggtg atcaaccctg acgctgggtg cacagactat      180
tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac      240
atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc      300
acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc      360
gtctcctca                                     369

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4358741_1

<210> 1821
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1821
 caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggggtg atcaaccctg acgctgggtg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga acaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaac cctggtcacc 360
 gtctcctca 369

<210> 1822
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1822
 caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggggtg atcaaccctg acgctgggtg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
 atggaactga acagcctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaac cctggtcacc 360
 gtctcctca 369

<210> 1823
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1823
 caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggggtg atcaaccctg aaagtgggtg cacagactat 180
 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240

4358741_1

atggaactga acagcctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
 acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaac cctggtcacc 360
 gtctcctca 369

<210> 1824
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1824
 caggtgccgc tggtagctc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
 cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga aacaagctat 180
 gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
 atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc 300
 acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
 gtctcctca 369

<210> 1825
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1825
 caggtgccgc tggtagctc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
 cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga cacaagctat 180
 gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
 atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc 300
 acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
 gtctcctca 369

<210> 1826
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1826
 caggtgccgc tggtagctc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60

4358741_1

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tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgtgtg gatgggggtgg atcagcccta acagtgggtga aacaagctat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

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<210> 1827
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1827
caggtgccgc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
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cctggacaag ggcttgtgtg gatgggggtgg atcagcccta acagtgggtga aacaagctat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

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<210> 1828
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1828
caggtgccgc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgtgtg gatgggggtgg atcagcccta acagtgggtga cacaagctat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

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<210> 1829
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1829

caggtgccgc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga aacaagctat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360
gtctcctca	369

<210> 1830

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1830

caggtgccgc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga cacaagctat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360
gtctcctca	369

<210> 1831

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1831

caggtgcagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagtg gatgggggtg atcagcccta acagtgggtga aacaagctat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagcctgag atctgacgac acggccgtgt atttctgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360

gtctcctca

369

<210> 1832

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1832

caggtgcagc tggtagcagc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60

tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120

cctggacaag ggcttgagtg gatgggggtg atcagcccta acagtgggtga aacaagctat 180

gcacagaagt ttcaggacag ggtcaccatg accagggaac cgtccatcag cacagcctat 240

atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc 300

acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc 360

gtctcctca 369

<210> 1833

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1833

caggtgccgc tggtagcagc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60

tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120

cctggacaag gacttgagtg gatgggggtg atcaaccctg aaagtgggtg cacagactat 180

tcacagaggt ttcaggacag ggtcaccatg accagggaac cgtccatcag cacagcctac 240

atggaactga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300

acgatttttg gaatgggttat tgtaccgttt gactactggg gccagggaac cctggtcacc 360

gtctcctca 369

<210> 1834

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1834

caggtgccgc tggtagcagc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60

tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120

cctggacaag gacttgagtg gatgggggtg atcaaccctg aaagtgggtg cacagactat 180

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tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac	240
atggaactga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc	360
gtctcctca	369

<210> 1835
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1835	
caggtgccgc tggcgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc	120
cctggacaag gacttgagt gatgggggtg atcaaccctg acagtgggtg cacagactat	180
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atggaactga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc	360
gtctcctca	369

<210> 1836
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1836	
caggtgcagc tggcgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc	120
cctggacaag gacttgagt gatgggggtg atcaaccctg aaagtgggtg cacagactat	180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac	240
atggaactga gcagcctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc	360
gtctcctca	369

<210> 1837
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1837
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
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tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
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acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 1838
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1838
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagtg gatgggggtg ataagcccta accaagggtg aacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 1839
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1839
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagtg gatgggggtg ataagcccta accaagggtg cacaaactat 180
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atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 1840

4358741_1

<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1840
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagt gatgggggtg ataagcccta accaagggtga aacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 1841
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1841
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagt gatgggggtg ataagcccta acaatgggtga aacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 1842
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1842
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagt gatgggggtg ataagcccta acaatgggtga cacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300

4358741_1

acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctgggtcacc 360
gtctcctca 369

<210> 1843
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1843
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagt gatgggggtg ataagcccta accaagggtga cacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctgggtcacc 360
gtctcctca 369

<210> 1844
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1844
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
cctggacaag ggcttgagt gatgggggtg ataagcccta acaatgggtga aacaaactat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctgggtcacc 360
gtctcctca 369

<210> 1845
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1845
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

4358741_1

tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagt gatgggggtg ataagcccta accaagggtga aacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaac cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc	360
gtctcctca	369

<210> 1846
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1846	
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagt gatgggggtg ataagcccta acaatggtga cacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaac cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc	360
gtctcctca	369

<210> 1847
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1847	
caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagt gatgggggtg ataagcccta accaagggtga cacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaac cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc	360
gtctcctca	369

<210> 1848
 <211> 369
 <212> DNA
 <213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1848

caggtgccgc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tacactgggt	gcgtcaggcc	120
cctggacaag	ggcttgagt	gatgggggtg	ataagcccta	acaatggtga	aacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
atggagctga	gcaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatgcttat	tgtaccattt	gactactggg	gccagggaac	cctggtcacc	360
gtctcctca						369

<210> 1849

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1849

caggtgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tacactgggt	gcgtcaggcc	120
cctggacaag	ggcttgagt	gatgggggtg	ataagcccta	accaaggtga	aacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
atggagctga	gcagcctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatgcttat	tgtaccattt	gactactggg	gccagggaac	cctggtcacc	360
gtctcctca						369

<210> 1850

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1850

caggtgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tacactgggt	gcgtcaggcc	120
cctggacaag	ggcttgagt	gatgggggtg	ataagcccta	accaaggtga	aacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
atggagctga	gcagcctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatgcttat	tgtaccattt	gactactggg	gccagggaac	cctggtcacc	360
gtctcctca						369

4358741_1

<210> 1851
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1851
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagt gatgggatg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1852
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1852
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagt gatgggatg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1853
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1853
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagt gatgggatg atcaacccta acagtgggtg cacaaactat 180

4358741_1

gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctca 384

<210> 1854

<211> 384

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1854

cagatgcagg tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttccgata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggatgg atcaacccta acagtgggtg cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctca 384

<210> 1855

<211> 384

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1855

cagatgcagg tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttccgata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggatgg atcaacccta acagtgggtg cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctca 384

<210> 1856

<211> 384

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1856
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1857
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1857
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1858
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1858
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1859
<211> 384

4358741_1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1859

cagatgcagg	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttccggata	caccttcacc	ggctactata	tgcatagggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctca				384

<210> 1860

<211> 384

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1860

cagatgcagg	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttccggata	caccttcacc	ggctactata	tgcatagggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctca				384

<210> 1861

<211> 384

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1861

cagatgcagg	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttccggata	caccttcacc	ggctactata	tgcatagggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300

4358741_1

gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctca 384

<210> 1862
 <211> 384
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1862
 cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
 tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctca 384

<210> 1863
 <211> 384
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1863
 cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
 tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcagcctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt tcgggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctca 384

<210> 1864
 <211> 384
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1864
 cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
 tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120

4358741_1

cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac	240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg	300
gattacgttt tcgggactta tcggcctcac tactactacg gtatggacgt ctggggccaa	360
gggaccacgg tcaccgtctc ctca	384

<210> 1865
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1865	
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggcc	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg	300
acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggg caccgtctcc	360
tca	363

<210> 1866
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1866	
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatagg	300
acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggg caccgtctcc	360
tca	363

<210> 1867
 <211> 384
 <212> DNA
 <213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1867
cagatgcagg tggatgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1868
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1868
caggtgcagt tggatggagtc tgggggaggc gtggtccagc ctgggaggctc cctgagactc 60
tcctgtacag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taagttccat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa 300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct 360
tca 363

<210> 1869
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1869
caaatgcagc tggatgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120
actggacaag ggcttgagtg gatgggatgg atgaacccta acagtggtaa cacaggctat 180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac 240
atggagctga gcagcctgag atctcaggac acggccgtgt attactgtgc gagagggggg 300
gattacgttt gggggagtta tcgtccctac tactactact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctccctca 387

4358741_1

<210> 1870
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1870
 caggtgcagt tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa 300
 gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct 360
 tca 363

<210> 1871
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1871
 caggtgcagt tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtacag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa 300
 gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct 360
 tca 363

<210> 1872
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1872
 caggtgcagt tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240

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ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct	360
tca	363

<210> 1873
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1873	
caggtgcagt tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacattggt caccgtctct	360
tca	363

<210> 1874
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1874	
caggtgcagt tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct	360
tca	363

<210> 1875
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1875

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caggtgcagt tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taagttccat      180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaataa acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa      300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct      360
tca                                                                    363

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<210> 1876
 <211> 387
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1876
caaatgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc      60
tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc      120
actggacaag ggcttgagtg gatgggatgg atgaacccta acagtgggtg cacaggctat      180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac      240
atggagctga gcagcctgag atctcaggac acggccgtgt attactgtgc gagagggggg      300
gattacgttt gggggagtta tcgtccctac tactactact acggtatgga cgtctggggc      360
caagggacca cggtcaccgt ctcctca                                       387

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<210> 1877
 <211> 387
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1877
caaatgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc      60
tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc      120
actggacaag ggcttgagtg gatgggatgg atgaacccta acagtggtaa cacaggctat      180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac      240
atggagctga gcagcctgag atctcaggac acggccgtgt attactgtgc gagagggggg      300
gattacgttt gggggagtta tcgtccctac tactactact acggtatgga cgtctggggc      360
caagggacca cggtcaccgt ctcctca                                       387

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<210> 1878
 <211> 387
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1878

caaatgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	agttatgata	tcaactgggt	gcgacaggcc	120
actggacaag	ggcttgagt	gatgggatg	atgaacccta	acagtgggtg	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctcaggac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctca				387

<210> 1879

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1879

caaatgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	agttatgata	tcaactgggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggatg	atgaacccta	acagtgggtg	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctca				387

<210> 1880

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1880

caaatgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	agttatgata	tcaactgggt	gcgacaggcc	120
actggacaag	ggcttgagt	gatgggatg	atgaacccta	acagtgggtg	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctcaggac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360

caagggacca cggtcaccgt ctcctca

387

<210> 1881
 <211> 387
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1881
 caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggatgg atgaacccta acagtggtaa cacaggctat 180
 gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac 240
 atggagctga gcagcctgag atctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggagtta tcgtccctac tactactact acggtatgga cgtctggggc 360
 caagggacca cggtcaccgt ctcctca 387

<210> 1882
 <211> 387
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1882
 caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120
 actggacaag ggcttgagt gatgggatgg atgaacccta acagtgggtg cacaggctat 180
 gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac 240
 atggagctga gcagcctgag atctcaggac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt tcgggagtta tcgtccctac tactactact acggtatgga cgtctggggc 360
 caagggacca cggtcaccgt ctcctca 387

<210> 1883
 <211> 387
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1883
 caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120

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cctggacaag ggcttgagtg gatgggatgg atgaacccta acagtgggtg cacaggctat 180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac 240
atggagctga gcagcctgag atctgacgac acggccgtgt attactgtgc gagaggggggt 300
gattacgttt tcgggagtta tcgtccctac tactactact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca 387

<210> 1884

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1884

caggtgcagt tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat 180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa 300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacattggg caccgtctct 360
tca 363

<210> 1885

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1885

cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcacctc 120
ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
tctgaggatg aggctgatta tttctgtgca acattcgatg acagcctgaa tgggtccggta 300
ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360
ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggg gtgtctcata 420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag 480
gcgggagtg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca 648

4358741_1

<210> 1886
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1886
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1887
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1887
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1888

<211> 639
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1888
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
 gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
 accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcatctt cccgccatct 360
 gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
 agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
 agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcacca tcagggcctg 600
 agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1889
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1889
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
 tggtagcagc agcaaccagg acatcctcct aagctgctca tttactgggc atctaccgga 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct 360
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540
 ctgagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gttcaacag gggagagtgt 660

<210> 1890
 <211> 660
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1890

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acatcctcct aagctgctca ttactgggc atctaccg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gttcaacag gggagagtgt	660

<210> 1891

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1891

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccg	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gttcaacag gggagagtgt	660

<210> 1892

<211> 660

<212> DNA

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1892

gacatcgtga tgacccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccagc agaaaccagg acagcctcct aacctgtca ttactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcacc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1893

<211> 645

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1893

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa	120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag	240
cctgatgatt ttgcagtgta ttactgtcag cagtatggta gttcaccgct cactttcggc	300
ggagggacca aggtggagat caaacgaacg gtggctgcac catctgtctt catcttcccg	360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc	420
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc	480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg	540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag	600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt	645

<210> 1894

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

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polynucleotide

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<400> 1894
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc      60
ctctcctgca gggccagtc gagtgttagc agcaacttag cctggtacca gcagaaacct      120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc      180
agggtcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct      240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga      300
gggaccaagg tggagatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                        642

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<210> 1895
<211> 642
<212> DNA
<213> Artificial Sequence

```

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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<400> 1895
gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca      120
gggaaagccc ctaaagcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct      240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccct      300
gggaccaaag tggatgtcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                        642

```

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<210> 1896
<211> 639
<212> DNA
<213> Artificial Sequence

```

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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4358741_1

<400> 1896
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtc ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg 300
accaaagtgg atatcaaacg aacggtggct gcaccatctg tcttcatctt cccgccatct 360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcacca tcagggcctg 600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1897
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1897
gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc ggcgagtc ggtcttatc atctggttag cctggtatca gcagaaaccg 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggctc tgggacagat ttcactctca ccatcagcag cctacagcct 240
gaagattttg caacttacta ttgtcaacag actaacagtt tccctccgac gttcggccaa 300
gggaccaagg tggaaatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1898
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1898
gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60

4358741_1

```

atcacttgtc gggcgagtca gggctcttatc atctggtttag cctggtatca gcagaaaccg      120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggctc tgggacagat ttcactctca ccatcagcag cctacagcct      240
gaagattttg caacttacta ttgtcaacag actaacagtt tccctccgac gttcggccaa      300
gggaccaagg tggaaatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 1899

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1899

```

gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgagtttag gctggtatca gcagaaacca      120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct      240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa      300
gggaccaaag tggatgtcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 1900

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1900

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gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgagtttag gctggtatca gcagaaacca      120

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4358741_1

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gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagag ttactctca caatcagcag cctgcagcct      240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa      300
gggaccaaag tggatgtcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 1901

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1901

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gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca      120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagag ttactctca caatcagcag cctgcagcct      240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa      300
gggaccaaag tggatgtcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

```

<210> 1902

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1902

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gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca      120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca      180

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4358741_1

aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct	240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccct	300
gggaccaaag tggatgtcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1903

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1903

gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca	120
gggaaagccc ctaaagcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct	240
gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa	300
gggaccaaag tggatgtcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1904

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1904

gacattcaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgagttag gctggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct	240

4358741_1

gaagattttg taacttatta ctgtctacag cataatagtt acccattcac tttcggccaa	300
gggaccaaag tggatgtcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1905

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1905

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattattttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1906

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1906

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattattttag gctggtatca gcagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300

4358741_1

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gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 1907
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

```

<400> 1907
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc      60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca      120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca      180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct      240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct      300
gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 1908
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1908
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc      60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca      120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca      180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct      240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa      300
gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360

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4358741_1

tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1909

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1909

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300
gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1910

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1910

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300
gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420

4358741_1

cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1911
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1911	
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300
gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1912
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1912	
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga aattatttag gctggtatca ccagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480

4358741_1

gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1913
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1913
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1914
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1914
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540

4358741_1

ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1915
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1915
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca ccagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcgccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1916
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1916
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcgccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600

4358741_1

ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1917
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1917
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1918
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1918
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca ccagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1919
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1919
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca ccagaaacca 120
 gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1920
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1920
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

4358741_1

<210> 1921
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1921
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1922
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1922
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1923
 <211> 642

4358741_1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1923

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gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc      60
atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca      120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca      180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct      240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct      300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                        642

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<210> 1924

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1924

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gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca      120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca      180
aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct      240
gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg      300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcatctt cccgccatct      360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc      420
agagaggcca aagtacagtg gaagggtgat aacgccctcc aatcgggtaa ctcccaggag      480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg      540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcacca tcagggcctg      600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt                        639

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<210> 1925

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1925

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct	240
gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg	300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcacttt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt	639

<210> 1926

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1926

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg	300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcacttt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt	639

<210> 1927

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1927

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca      120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca      180
aggttcagtg gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct      240
gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg      300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcatctt cccgccatct      360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc      420
agagaggcca agtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag      480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg      540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg      600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt      639
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<210> 1928

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1928

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca      120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca      180
aggttcagtg gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct      240
gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg      300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcatctt cccgccatct      360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc      420
agagaggcca agtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag      480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg      540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg      600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt      639
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<210> 1929

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1929
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180
aggttcagt gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcacttt cccgccatct 360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca aagtacagt gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1930
<211> 639
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1930
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca 180
aggttcagt gaagtggatc tgggacagat tttagtttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg 300
accaaggtgg agatcaagcg aacggtggct gcaccatctg tcttcacttt cccgccatct 360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca aagtacagt gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1931
<211> 639
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1931

4358741_1

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
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gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca      180
aggttcagt gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct      240
gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg      300
accaaggtgg agatcaagcg aacgggtggct gcaccatctg tcttcatctt cccgccatct      360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc      420
agagaggcca aagtacagt gaaggtggat aacgccctcc aatcgggtaa ctcccaggag      480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg      540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg      600
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<210> 1932

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1932

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gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca      180
aggttcagt gaagtggatc tgggacagat tttagtctca ccatcagcag cctgcagcct      240
gaagattttg caacatatta ctgtcaacag tatgatattc tcctcacttt cggcggaggg      300
accaaggtgg agatcaagcg aacgggtggct gcaccatctg tcttcatctt cccgccatct      360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc      420
agagaggcca aagtacagt gaaggtggat aacgccctcc aatcgggtaa ctcccaggag      480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg      540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg      600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt      639

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<210> 1933

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1933

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc      60

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atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1934

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1934

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1935

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1935

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120

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gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1936

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1936

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
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gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1937

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1937

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180

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aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
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<210> 1938

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1938

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atcacttgcc gggcaagtca ggacattaga gattatcttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1939

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1939

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc	60
atcacttgcc gggcaagtca ggacattaga gattatcttag gctggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccttca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240

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gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccct	300
gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcc	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1940

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1940

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactattttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct	240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg	300
accaaagtgg atatcaaagc aacggtggct gcaccatctg tcttcatctt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgcagctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt	639

<210> 1941

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1941

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactattttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg	300

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accaaagtgg atatcaaacg aacggtggct gcaccatctg tcttcatctt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgccccg tcacaaagag cttcaacagg ggagagtgt	639

<210> 1942

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1942

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct	240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg	300
accaaagtgg atatcaaacg aacggtggct gcaccatctg tcttcatctt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgccccg tcacaaagag cttcaacagg ggagagtgt	639

<210> 1943

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1943

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct	240
gaagattttg caacatatta ctgtcaacag tatgatgatc tattcacttt cggccctggg	300
accaaagtgg atatcaaacg aacggtggct gcaccatctg tcttcatctt cccgccatct	360

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gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgccccg tcacaaagag cttcaacagg ggagagtgt	639

<210> 1944

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1944

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgatgac tattcacttt cggccctggg	300
accaaagtgg atatcaaagc aacggtggct gcaccatctg tcttcatctt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420
agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag	480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg	540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg	600
agctcgccccg tcacaaagag cttcaacagg ggagagtgt	639

<210> 1945

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1945

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca	120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct	240
gaagattttg caacatatta ctgtcaacag tatgatgac tattcacttt cggccctggg	300
accaaagtgg atatcaaagc aacggtggct gcaccatctg tcttcatctt cccgccatct	360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc	420

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agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
 agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
 agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1946

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1946

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatntaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
 gaagatattg caacatatta ctgtcaacag tatgatgac ttttacttt cggccctggg 300
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 agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
 agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
 agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1947

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1947

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 atcacttgcc aggcgagtca ggacattacc aactatntaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttacttca ccatcagcag cctgcagcct 240
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 accaaagtgg atatcaaagc aacggtggct gcaccatctg ttttcatctt cccgccatct 360
 gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
 agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480

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agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
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 agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1948
 <211> 639
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1948
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtgaagtggtgc tgggacagat tttactctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatgac tattcacttt cggccctggg 300
 accaaagtgg atatcaaagc aacggtggct gcaccatctg tcttcatctt cccgccatct 360
 gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
 agagaggcca aagtacagtgaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
 agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
 agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 1949
 <211> 639
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1949
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
 aggttcagtgaagtggtgc tgggacagat tttactctca ccatcagcag cctgcagcct 240
 gaagattttg caacatatta ctgtcaacag tatgatgac tattcacttt cggccaaggg 300
 accaaagtgg atatcaaagc aacggtggct gcaccatctg tcttcatctt cccgccatct 360
 gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
 agagaggcca aagtacagtgaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540

4358741_1

agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgccccg tcacaaagag cttcaacagg ggagagtgt 639

<210> 1950
<211> 639
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1950
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtggggga cagagtcacc 60
atcacttgcc aggcgagtc ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgat gcttccaatt tggagccagg ggtcccatca 180
aggttcagt gaagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
gaagattttg caacatatta ctgtcaacag tatgatgac tattcacttt cggccaaggg 300
accaaagtgg atatcaaagc aacgggtggc gcaccatctg tcttcatctt cccgccatct 360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca aagtacagt gaagggtgat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgccccg tcacaaagag cttcaacagg ggagagtgt 639

<210> 1951
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1951
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtc gatttttacc agcacctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttactc tcaccatcag cagattggag 240
cctgaagatt ttgcagtgt ttactgtcag cagtatggta gctcacctcg cttcggccaa 300
gggacacgac tggagattaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaaggtg gataacgcc tccaatcggg taactccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600

ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1952
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1952
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gattttttacc agcacctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag 240
 cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa 300
 gggacacgac tggagattaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1953
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1953
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gattttttacc agcacctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag 240
 cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa 300
 gggacacgac tggagattaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1954
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1954
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gattttttacc agcacctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagattggag 240
 cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcacctcg cttcggccaa 300
 gggacacgac tggagattaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1955
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1955
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgtttagc agcaacttag cctggtacca gcagaaacct 120
 ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1956

<211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1956
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
 ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1957
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1957
 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
 ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
 gggaccaagg tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1958
 <211> 642
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1958

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gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc      60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct      120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc      180
agggtcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct      240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga      300
gggaccaagg tggagatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                        642

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<210> 1959

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1959

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gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc      60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct      120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc      180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctggagcct      240
gaagattttg cagtttatta ctgtcagcag tataataact tccctctcac tttcggcgga      300
gggaccaagg tggagatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                        642

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<210> 1960

<211> 642

<212> DNA

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1960

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct	120
ggccaggctc ccaggctcct catctatggc gcagccacca gggccactgg tatcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctggagcct	240
gaagattttg cagtttatta ctgtcagcag tataataact atcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1961

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1961

gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc	60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct	120
ggccaggctc ccaggctcct catctatggc gcagccacca gggccactgg tatcccagcc	180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctggagcct	240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga	300
gggaccaagg tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 1962

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

4358741_1

polynucleotide

<400> 1962
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcagccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctggagcct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcc 360
tctgatgagc agttgaaatc tggaactgcc tctgtttgtg gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 1963
<211> 645
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polynucleotide

<400> 1963
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc 300
ggagggacca aggtggagat caaacgaacg gtggctgcac catctgtctt catcttccc 360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 420
tatcccagag aggccaaagt acagtgggaag gtggataacg ccctccaatc gggtaactcc 480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 645

<210> 1964
<211> 645
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polynucleotide

4358741_1

<400> 1964
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag 240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc 300
ggagggacca aggtggagat caaacgaacg gtggctgcac catctgtctt catcttcccg 360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 420
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc 480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 645

<210> 1965
<211> 645
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1965
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtattagt tacagttact tagcctggta ccagcagaaa 120
cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgatgatt ttgcagtgtg ttactgtcag cagtatggta gttcaccgct cactttcggc 300
ggagggacca aggtggagat caaacgaacg gtggctgcac catctgtctt catcttcccg 360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 420
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc 480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 645

<210> 1966
<211> 645
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1966
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

4358741_1

ctctcctgca	gggccagtca	gagtattagt	tacagttact	tagcctggta	ccagcagaaa	120
cctggccagg	ctccccggct	cctcatctat	ggtgcatcca	gcagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgatgatt	ttgcagtgta	ttactgtcag	cagtatggta	gttcaccgct	cactttcggc	300
ggagggacca	aggtggagat	caaacgaacg	gtggctgcac	catctgtctt	catcttcccg	360
ccatctgatg	agcagttgaa	atctggaact	gcctctgttg	tgtgcctgct	gaataacttc	420
tatcccagag	aggccaaagt	acagtggaag	gtggataacg	ccctccaatc	gggtaactcc	480
caggagagtg	tcacagagca	ggacagcaag	gacagcacct	acagcctcag	cagcaccctg	540
acgctgagca	aagcagacta	cgagaaacac	aaagtctacg	cctgcgaagt	cacccatcag	600
ggcctgagct	cgcccgtcac	aaagagcttc	aacaggggag	agtgt		645

<210> 1967

<211> 645

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1967

gaaattgtgt	tgacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtca	gagtattagt	tacagttact	tagcctggta	ccagcagaaa	120
cctggccagg	ctccccggct	cctcatctat	ggtgcatcca	gcagggccac	tggcatccca	180
gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
cctgatgatt	ttgcagtgta	ttactgtcag	cagtatggta	gttcaccgct	cactttcggc	300
ggagggacca	aggtggagat	caaacgaacg	gtggctgcac	catctgtctt	catcttcccg	360
ccatctgatg	agcagttgaa	atctggaact	gcctctgttg	tgtgcctgct	gaataacttc	420
tatcccagag	aggccaaagt	acagtggaag	gtggataacg	ccctccaatc	gggtaactcc	480
caggagagtg	tcacagagca	ggacagcaag	gacagcacct	acagcctcag	cagcaccctg	540
acgctgagca	aagcagacta	cgagaaacac	aaagtctacg	cctgcgaagt	cacccatcag	600
ggcctgagct	cgcccgtcac	aaagagcttc	aacaggggag	agtgt		645

<210> 1968

<211> 645

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1968

gaaattgtgt	tgacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
ctctcctgca	gggccagtca	gagtattagt	tacagttact	tagcctggta	ccagcagaaa	120

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cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca      180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag      240
cctgatgatt ttgcagtgta ttactgtcag cagtatggta gttcaccgct cactttcggc      300
ggagggacca aggtggagat caaacgaacg gtggctgcac catctgtctt catcttcccg      360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc      420
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc      480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg      540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag      600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt      645

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<210> 1969
 <211> 645
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1969
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc      60
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cctggccagg ctccccggct cctcatctat ggtgcatcca gcagggccac tggcatccca      180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacaggag      240
cctgatgatt ttgcagtgta ttactgtcag cagtatggta gttcaccgct cactttcggc      300
ggagggacca aggtggagat caaacgaacg gtggctgcac catctgtctt catcttcccg      360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc      420
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc      480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg      540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag      600
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt      645

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<210> 1970
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 1970
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct      120
tggtaccagc agcaaccagg acatcctcct aagctgtcct tttactgggc atctaccg      180

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ccgtggacgt	tcggccaagg	gaccaaggtg	gaaatcaaac	gaacggtggc	tgcaccatct	360
gtcttcatct	ttccgccatc	tgatgagcag	ttgaaatctg	gaactgcctc	tgttgtgtgc	420
ctgctgaata	acttctatcc	cagagaggcc	aaagtacagt	ggaaggtgga	taacgccctc	480
caatcgggta	actcccagga	gagtgtcaca	gagcaggaca	gcaaggacag	cacctacagc	540
ctcagcagca	ccctgacgct	gagcaaagca	gactacgaga	aacacaaagt	ctacgcctgc	600
gaagtcaccc	atcagggcct	gagctcgccc	gtcacaaaga	gcttcaacag	gggagagtgt	660

<210> 1971

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1971

gacatcgtga	tgaccagtc	tccagactcc	ctggctgtgt	ctctgggcga	gagggccacc	60
atcaactgca	agtccagcca	gagtgtttta	tccagctcca	acaataagaa	ctacatagct	120
tggtaccagc	agcaaccagg	acatcctcct	aagctgctca	tttactgggc	atctaccg	180
gaatccgggg	tccctgaccg	attcagtggc	agcgggtctg	ggacagattt	cactctcacc	240
atcagcagcc	tgcaggctga	agatgtggca	gttttttact	gtcaacaata	ttatagtact	300
ccgtggacgt	tcggccaagg	gaccaaggtg	gaaatcaaac	gaacggtggc	tgcaccatct	360
gtcttcatct	ttccgccatc	tgatgagcag	ttgaaatctg	gaactgcctc	tgttgtgtgc	420
ctgctgaata	acttctatcc	cagagaggcc	aaagtacagt	ggaaggtgga	taacgccctc	480
caatcgggta	actcccagga	gagtgtcaca	gagcaggaca	gcaaggacag	cacctacagc	540
ctcagcagca	ccctgacgct	gagcaaagca	gactacgaga	aacacaaagt	ctacgcctgc	600
gaagtcaccc	atcagggcct	gagctcgccc	gtcacaaaga	gcttcaacag	gggagagtgt	660

<210> 1972

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1972

gacatcgtga	tgaccagtc	tccagactcc	ctggctgtgt	ctctgggcga	gagggccacc	60
atcaactgca	agtccagcca	gagtgtttta	tccagctcca	acaataagaa	ctacatagct	120
tggtaccagc	agcaaccagg	acatcctcct	aagctgctca	tttactgggc	atctaccg	180
gaatccgggg	tccctgaccg	attcagtggc	agcgggtctg	ggacagattt	cactctcacc	240

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gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1973

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1973

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtagcagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1974

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1974

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtagcagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1975
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1975 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1976
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1976 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
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caatcgggta actcccagga gagtgtcaca gaggaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1977

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1977

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gaggaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1978

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1978

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agcaaccagg acatcctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
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caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1979

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1979

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1980

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1980

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
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gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1981
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1981 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
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gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 1982
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1982 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
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<210> 1983
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1983
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
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 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1984
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1984
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 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
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 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600

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gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1985

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1985

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tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1986

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1986

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
tggtaccaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1987
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1987
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
 gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct 360
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtgc 420
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480
 caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc 540
 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1988
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1988
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcaac agaaaccagg acagcctcct aaactgctca ttactggac ttctaccga 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct 360
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtgc 420
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480
 caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc 540
 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1989
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1989
 gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
 tggtagcaac agaaaccagg acagcctcct aacctgctca ttactggac ttctaccgca 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct 360
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
 caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc 540
 ctgagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1990
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1990
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
 atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct 120
 tggtagcagc agaaaccagg acatcctcct aagctgctca ttactgggc atctaccggg 180
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
 atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact 300
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct 360
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
 caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc 540
 ctgagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1991
 <211> 660

4358741_1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1991

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gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct      120
tggtaccagc agaaaccagg acatcctcct aagctgtctca ttactgggc atctaccgg      180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact      300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct      360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc      420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc      480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc      540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc      600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt      660

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<210> 1992

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1992

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gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct      120
tggtaccagc agaaaccagg acatcctcct aagctgtctca ttactgggc atctaccgg      180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact      300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct      360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc      420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc      480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc      540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc      600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt      660

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<210> 1993

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1993

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gtttcaacag gggagagtgt	660

<210> 1994

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1994

gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacatagct	120
tggtaccagc agaaaccagg acaacctcct aagctgctca ttactgggc atctaccg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc tgcaggctga agatgtggca gttttttact gtcaacaata ttatagtact	300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gtttcaacag gggagagtgt	660

<210> 1995

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1995

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gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct      120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga      180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact      300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct      360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc      420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc      480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc      540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc      600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt      660
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<210> 1996

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1996

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gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc      60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct      120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga      180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact      300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct      360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc      420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc      480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc      540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc      600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt      660
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<210> 1997

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 1997
gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1998
<211> 660
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1998
gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga 180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 1999
<211> 660
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 1999

4358741_1

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 2000

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2000

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 2001

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2001

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
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4358741_1

atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtg	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 2002

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2002

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120
tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtg	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 2003

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2003

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
atcaactgca agtccagcca gagtgtttta tccagctcca acaataagaa ctacttagct	120

4358741_1

tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcaacagcc tgcaggctga agatgtggct gtttattact gtcagcaata ttatcgtact	300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
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<210> 2004

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2004

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tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
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ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaacggtggc tgcaccatct	360
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ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 2005

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2005

gacatcgtga tgaccagtc tccagactcc ctgtctgtgt ctctgggcga gagggccacc	60
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tggtaccagc agaaaccagg acagcctcct aacctgctca ttactggac ttctaccga	180

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ccgtggacgt	tcggccaagg	gaccaaggtg	gaaatcaaac	gaacggtggc	tgaccatct	360
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ctgctgaata	acttctatcc	cagagaggcc	aaagtacagt	ggaagggtga	taacgccctc	480
caatcgggta	actcccagga	gagtgtcaca	gagcaggaca	gcaaggacag	cacctacagc	540
ctcagcagca	ccctgacgct	gagcaaagca	gactacgaga	aacacaaagt	ctacgcctgc	600
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<210> 2006

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2006

gacatcgtga	tgaccagtc	tccagactcc	ctggctgtgt	ctctgggcga	gagggccacc	60
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tggtaccagc	agaaaccagg	acagcctcct	aaactgctca	tttactggac	ttctaccgga	180
gattccgggg	tccctgaccg	attcagtggc	agcgggtctg	ggacagattt	cactctcacc	240
atcaacagcc	tgagggtga	agatgtggct	gtttattact	gtcagcaata	ttatcgtact	300
ccgtggacgt	tcggccaagg	gaccaaggtg	gaaatcaaac	gaacggtggc	tgaccatct	360
gtcttcatct	ttccgccatc	tgatgagcag	ttgaaatctg	gaactgcctc	tgttgtgtgc	420
ctgctgaata	acttctatcc	cagagaggcc	aaagtacagt	ggaagggtga	taacgccctc	480
caatcgggta	actcccagga	gagtgtcaca	gagcaggaca	gcaaggacag	cacctacagc	540
ctcagcagca	ccctgacgct	gagcaaagca	gactacgaga	aacacaaagt	ctacgcctgc	600
gaagtcaccc	atcagggcct	gagctcgccc	gtcacaaaga	gcttcaacag	gggagagtgt	660

<210> 2007

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2007

gacatcgtga	tgaccagtc	tccagactcc	ctggctgtgt	ctctgggcga	gagggccacc	60
atcaactgca	agtccagcca	gagtgtttta	tccagctcca	acaataagaa	ctacttagct	120
tggtaccagc	agaaaccagg	acagcctcct	aaactgctca	tttactggac	ttctaccgga	180
gaatccgggg	tccctgaccg	attcagtggc	agcgggtctg	ggacagattt	cactctcacc	240

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gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
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caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgt gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660

<210> 2008

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2008

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ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct	180
gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag	240
tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgag tgggccggta	300
ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
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agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag	480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca	648

<210> 2009

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2009

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tcttgttctg gaagtagctc caacatcgga agtcaaactg taaactggta ccagcacctc	120
ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct	180
gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag	240
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agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag	480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca	648

<210> 2010

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2010

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tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc	120
ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct	180
gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tggggtccag	240
tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgag tgggtccggta	300
ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
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gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca	648

<210> 2011

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2011

cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc	60
tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc	120
ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct	180
gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tggggtccag	240
tctgaggatg aggctgatta tttctgtgca acattcgatg aaagcctgca aggtccggta	300
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gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
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<210> 2012

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2012

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tcttgttctg gaagtagctc caacatcgga agtcaaatg taaactggta ccagcacctc	120
ccaggaacgg ccccaaaact cctcatctat actaataatc agcggccctc aggggtccct	180
gaccgattct ctgggtccaa gtctggcacc tcagcctccc ttgccatcag tgggtccag	240
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ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
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gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggagg tcccacagaa gctacagctg ccagggtcacg	600
catgaaggga gcaccgtgga gaagacagtgc gccctacag aatgttca	648

<210> 2013

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2013

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tcttgttctg gaagtagctc caacatcgga agtaattatg taaactggta ccagcacctc	120
ccaggaacgg ccccaaaact cctcatctat actaataatc agcggccctc aggggtccct	180
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ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
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<210> 2014

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2014

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 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
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 tatctgagcc tgacgcctga gcagtggaaag tcccacagaa gctacagctg ccagggtcacg 600
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<210> 2015

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2015

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<210> 2016
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2016
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<210> 2017
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2017
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<210> 2018
<211> 648
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2018
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<210> 2019
<211> 648
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2019
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<210> 2020
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2020
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<210> 2021
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2021
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 gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540
 tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg 600
 catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca 648

<210> 2022
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2022
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggaccttaga aattatttag gctggtatca acagaaacca 120
 gggaaagccc ctaagcgcct gatctatggg gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 2023
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2023
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga gattatttag gctggtatca gcagaaacca 120
 gggaaagccc ctaagcgcct gatctatggg gcatccagtt tgcaaagtgg ggtcccttca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagatttcg caacttatta ctgtctacag cataataatt accccttcac tttcggccaa 300
 gggaccaaag tggatatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 2024

4358741_1

<211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2024
 cagtctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
 tcttgttctg gaagtagctc caacatcgga agtaatactg taaactggta ccagcaactc 120
 ccaggaacgg cccccaaact cctcatctat actaataatc agcggccctc aggggtccct 180
 gaccgattct ctggctccaa gtctggcacc tcagcctccc ttgccatcag tgggctccag 240
 tctgaggatg aggctgatta tttctgtgca acattcgata gcagcctgag tgggtccggta 300
 ttcggcggag ggaccaagct gaccgtccta ggtcagccca aggctgcccc ctcggtcact 360
 ctgttcccg cctcctctga ggagcttcaa gccacaagg ccacactggg gtgtctcata 420
 agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag 480
 gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540
 tatctgagcc tgacgcctga gcagtggaa tccacagaa gctacagctg ccagggtcacg 600
 catgaagggg gcaccgtgga gaagacagtg gccctacag aatgttca 648

<210> 2025
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2025
 gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
 atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtg gcagtggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag 300
 gggaccaagc tggagatcac acgaacggtg gctgcaccat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 2026
 <211> 648
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2026

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cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc      60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tgagcagttc      120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tgggcatcac cggactccag      240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta      300
ttcggcggag ggaccaaact gaccgtccta ggtagcccca aggctgcccc ctcggtcact      360
ctgttcccg cctcctctga ggagcttcaa gccacaagg ccacactggg gtgtctcata      420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag      480
gcgggagtg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc      540
tatctgagcc tgacgcctga gcagtggag tcccacagaa gctacagctg ccaggtcacg      600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca      648
```

<210> 2027

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2027

```
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact      60
atcacttgcc gggcaagtca gaccattagc aggtttttta attggtatca gcagaaacct      120
gggaaagccc ctgagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca      180
agattcagtg gcagtggttc tgggacagat ttcactctca ccatcagcag tctgcaacct      240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttgccag      300
gggaccaagc tggagatcaa acgaacgggtg gctgcaccat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaagggt gataacgccc tccaatcggg taactcccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt      642
```

<210> 2028

<211> 642

<212> DNA

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2028

gacatccagc tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact	60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct	120
gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca	180
agattcagtg gcagtgggtc tgggacagat ttcactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag	300
gggaccaagc tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 2029

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2029

gacatccagc tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact	60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct	120
gggaaagccc ctgagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca	180
agattcagtg gcagtgggtc tgggacagat ttcactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag	300
gggaccaagc tggagatcac acgaacggtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 2030

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

4358741_1

polynucleotide

```

<400> 2030
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact      60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct      120
gggaaagccc ctaagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca      180
agattcagtg gcagtgggtc tgggacagat ttcactctca ccatcagcag tctgcaacct      240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag      300
gggaccaagc tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 2031
<211> 642
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

```

<400> 2031
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact      60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct      120
gggaaagccc ctgagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca      180
agattcagtg gcagtgggtc tgggacagat ttcactctca ccatcagcag tctgcaacct      240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag      300
gggaccaagc tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcca      360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactccag      480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          642

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<210> 2032
<211> 642
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

```

4358741_1

<400> 2032
 gacatccagc tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
 atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct 120
 gggaaagccc ctgagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
 agattcagtg gcagtggttc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta ccctgatcag ttttggccag 300
 gggaccaagc tggagatcaa acgaacggtg gctgcacat ctgtcttcat cttcccgcga 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 2033
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2033
 cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60
 tcctgctctg gaagcagctc caacattgga aataattatg tatcctggta tcagcagctc 120
 ccaggaacag ccccaaaact cctcatttat gacaataata agcgaccctc agggattcct 180
 gaccgattct ctggctccaa gtctggcacg tcagccaccc tgggcatcac cggactccag 240
 actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta 300
 ttcgggcggag ggaccaaact gaccgtccta ggctcagcca aggctgcccc ctcggtcact 360
 ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggg gtgtctcata 420
 agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag 480
 gcgggagtg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc 540
 tatctgagcc tgacgcctga gcagtggaaag tcccacagaa gctacagctg ccaggtcacg 600
 catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca 648

<210> 2034
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2034
 cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60

4358741_1

tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc	120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct	180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tgggcatcac cggactccag	240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta	300
ttcggcggag ggaccaaact gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggt gtgtctcata	420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag	480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca	648

<210> 2035

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2035

cagtctgtgt tgacgcagcc gccctcagt tctgcggccc caggacagaa ggtcaccatc	60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tgagcagttc	120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct	180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tgggcatcac cggactccag	240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta	300
ttcggcggag ggaccaaact gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggt gtgtctcata	420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag	480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca	648

<210> 2036

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2036

cagtctgtgt tgacgcagcc gccctcagt tctgcggccc caggacagaa ggtcaccatc	60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc	120

4358741_1

```

ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tggccatcac cggactccag      240
actggggacg aggccgatta ttactgcgga acattcgaaa gcagcctgag tgctgtggta      300
ttcggcggag ggaccaaact gaccgtccta ggtcagccca aggctgcccc ctcggtcact      360
ctgttcccg cctcctctga ggagcttcaa gccaacaagg ccacactggg gtgtctcata      420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag      480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc      540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg      600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca      648

```

<210> 2037
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

```

<400> 2037
cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc      60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc      120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tggccatcac cggactccag      240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta      300
ttcggcggag ggaccaaact gaccgtccta ggtcagccca aggctgcccc ctcggtcact      360
ctgttcccg cctcctctga ggagcttcaa gccaacaagg ccacactggg gtgtctcata      420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag      480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc      540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg      600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca      648

```

<210> 2038
 <211> 648
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

```

<400> 2038
cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc      60
tcctgctctg gaagcagctc caacattgga aataattatg tctcctggta tcagcagctc      120
ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct      180

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4358741_1

gaccgattct ctgggtccaa gtctggcacg tcagccaccc tggccatcac cggactccag	240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta	300
ttcggcggag ggaccaaact gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggt gtgtctcata	420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag	480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gcccttacag aatgttca	648

<210> 2039

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2039

cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc	60
tcctgctctg gaagcagctc caacattgga aataattatg ttcctggta tcagcagctc	120
ccaggaacag ccccaaact cctcatttat gacaataata agcgaccctc agggattcct	180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tggccatcac cggactccag	240
actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tgctgtggta	300
ttcggcggag ggaccaaact gaccgtccta ggtcagccca aggctgcccc ctcggtcact	360
ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggt gtgtctcata	420
agtgacttct acccgggagc cgtgacagtg gcctggaagg cagatagcag ccccgtaag	480
gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gcccttacag aatgttca	648

<210> 2040

<211> 648

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2040

cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc	60
tcctgctctg gaagcagctc caacattgga aataattatg ttcctggta tcagcagctc	120
ccaggaacag ccccaaact cctcatttat gacaataata agcgaccctc agggattcct	180
gaccgattct ctgggtccaa gtctggcacg tcagccaccc tggccatcac cggactccag	240

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actggggacg aggccgatta ttactgcgga acattcgaaa gcagcctgag tgctgtggta	300
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ctgttcccgc cctcctctga ggagcttcaa gccacaagg ccacactggt gtgtctcata	420
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gcgggagtgg agaccaccac accctccaaa caaagcaaca acaagtacgc ggccagcagc	540
tatctgagcc tgacgcctga gcagtggaag tcccacagaa gctacagctg ccaggtcacg	600
catgaaggga gcaccgtgga gaagacagtg gccctacag aatgttca	648

<210> 2041

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2041

gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact	60
atcacttgcc gggcaagtca gaccattagc aggttttttaa attggtatca gcagaaacct	120
gggaaagccc ctaagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca	180
agattcagtg gcagtggttc tgggacagat ttactctca ccatcagcag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagta ccctgctcag ttttggccag	300
gggaccaagc tggagatcaa acgaacggtg gctgcaccat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt	642

<210> 2042

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2042

cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttccggata caccttcacc ggctactata tgcatgggt gcgacaggcc	120
cctggacaag ggcttgagt gatgggatgg atcaacccta acagtgggtg cacaaactat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac	240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg	300

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gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcgggtctt	ccccctggca	420
ccctcctcca	agagcacctc	tggggggcaca	gcggccctgg	gctgcctggt	caaggactac	480
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aaggtggaca	agaaagttag	gcccaaattct	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
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aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttctc	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2043

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2043

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tcctgtgcag	cgtctggatt	cacttttcagt	aacttttgga	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atggaagtaa	tgaaaactat	180
gcagactccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	tacgctgtat	240
ctgcacatga	acagcctgag	agtcgcggac	acggctgtgt	attattgtgc	gcgagatggg	300
acgatctttg	gagtgggtctt	gggggactac	tggggccagg	gaaccctggt	caccgtctcc	360
tcagcctcca	ccaagggccc	atcgggtctt	cccctggcac	cctcctccaa	gagcacctct	420
gggggcacag	cggccctggg	ctgcctggtc	aaggactact	tccccgaacc	ggtgacgggtg	480
tcgtggaact	caggcgccct	gaccagcggc	gtgcacacct	tcccggctgt	cctacagtcc	540
tcaggactct	actccctcag	cagcgtggtg	accgtgccct	ccagcagctt	gggcacccag	600

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acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
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ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccgacc	780
cctgaggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgaggag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2044

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2044

caggtgcagc tggtaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat	180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cagctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatggg	300
acgatttttg gagtgtcttt gggggactac tggggccagg gaaccctggc caccgtctcc	360
tcagcctcca ccaagggccc atcggctctc cccctggcac cctcctcaa gagcacctct	420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag	600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccgacc	780
cctgaggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
tggtagctgg acggcgtgga ggtgcataat gccaaagaaa agccgtgtga ggagcagtac	900
ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960

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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2045

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2045

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tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagcgaca attccaagaa cagctgttat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg	300
acgatttttg gagtggttct tgactactgg ggccagggaa ccctggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
tggaaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
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<210> 2046
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2046
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 tcctgcaagg cttctggata caccttcacc ggctactata tccactgggt gcgacaggcc 120
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 tcacagaggt ttcagggcag gttcaccatg accagggaca cgtccatcag cacagcctac 240
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 cactacacgc agaagagcct ctccctgtct ccgggtaaa 1359

<210> 2047
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2047

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tcctgcaagg	cttctggata	caccttcacc	ggctactata	tccactgggt	gcgacaggcc	120
cctggacaag	gacttgagtg	gatgggggtg	atcaaccctg	acagtgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
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agcagggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcattgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2048

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2048

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cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2049

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2049

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tcctgcaagg	cttctggata	caccttcacc	ggctactata	tacactgggt	gcgtcaggcc	120
cctggacaag	ggcttgagtg	gatgggggtg	ataagcccta	acaatgggtga	cacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
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gtctcctcag	cctccaccaa	gggcccacg	gtcttcccc	tggcaccctc	ctccaagagc	420
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cggacccctg aggtcacatg cgtggtggtg gacgtgagcc acgaagacc ttaggtcaag	840
ttcaactggt acgtggacgg cgtggaggtg cataatgcc aagacaaagcc gtgtgaggag	900
cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
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cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
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cctcccgtgc tggactccga cggctcctt ttcctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcatgaggc tctgcacaac	1320
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<210> 2050

<211> 1368

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2050

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cagcacccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
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cgtattacga tttttggagt ggttatgggg ggcggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctctcagc ctccaccaag ggcccatcgg tcttccccct ggcaccctcc	420
tccaagagca cctctggggg cacagcggcc ctgggctgcc tgggtcaagga ctacttcccc	480
gaaccggtga cgggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttccc	540
gctgtcctac agtcctcagg actctactcc ctacagcagc tgggtgaccgt gccctccagc	600
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<210> 2051

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2051

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ccaggcgagg ggctggagtg ggtggcagct atatggtttg atggaagtga taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
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cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2052

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2052

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gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat	240
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tggcagcagg ggaacgtctt ctcattgtcc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2053

<211> 1350

<212> DNA

<213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2053

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ccaggcaagg ggctggagtg ggtggcagct atatggtatg atggaaataa taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat	240
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cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2054

<211> 1341

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2054

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acctgcactg tctctcaggg ctccatcagt agttactact ggagctggat ccggcagccc	120
gccgggaagg gactagagtg gattggccgt atctatacca gtgggagcac caactacaac	180

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gtggctggct ttgactactg gggccaggga accctgggtca ccgtctcctc agcctccacc	360
aagggcccat cggctctccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg	420
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca	480
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ctctccctgt ctccgggtaa a	1341

<210> 2055

<211> 1341

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2055

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gccgggaagg gactagagtg gattggccgt atctatacca gtgggagcac caactacaac	180
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<210> 2056

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2056

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat      180
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acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2057

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2057

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<210> 2058

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2058

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat	180
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gagatgacca agaaccagggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2059

<211> 1353

4358741_1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2059

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
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ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	taaatactat	180
gcagacgccg	tgaagggccg	cttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
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tcgtggaact	caggcgccct	gaccagcggc	gtgcacacct	tcccggctgt	cctacagtcc	540
tcaggactct	actccctcag	cagcgtggtg	accgtgccct	ccagcagctt	gggcacccag	600
acctacatct	gcaacgtgaa	tcacaagccc	agcaacacca	aggtggacaa	gaaagttgag	660
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ggcagcacgt	accgtttgtg	cagcgtcctc	accgtcctgc	accaggactg	gctgaatggc	960
aaggagtaca	agtgaaggt	ctccaacaaa	gccctcccag	cccccatcga	gaaaaccatc	1020
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gagatgacca	agaaccaggt	cagcctgacc	tgcttggtca	aaggcttcta	tcccagcgac	1140
atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	1200
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	1260
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	1320
acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2060

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2060

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	caccttcagt	tactttggca	tgactgggt	ccgccaggct	120

4358741_1

ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	taaatactat	180
gcagacgccg	tgaagggccg	cttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gcgagatggg	300
acgatttttg	gagtgtctct	gggggactac	tggggccagg	gaaccctggg	caccgtctcc	360
tcagcctcca	ccaagggccc	atcgggtcttc	cccctggcac	cctcctccaa	gagcacctct	420
gggggcacag	cggccctggg	ctgcctggtc	aaggactact	tccccgaacc	ggtgacggtg	480
tcgtggaact	caggcgccct	gaccagcggc	gtgcacacct	tcccggctgt	cctacagtcc	540
tcaggactct	actccctcag	cagcgtgggt	accgtgccct	ccagcagctt	gggcacccag	600
acctacatct	gcaacgtgaa	tcacaagccc	agcaacacca	aggtggacaa	gaaagttgag	660
cccaaattct	gtgacaaaac	tcacacatgc	ccaccgtgcc	cagcacctga	actcctgggg	720
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aaggagtaca	agtgaagggt	ctccaacaaa	gccctcccag	cccccatcga	gaaaaccatc	1020
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atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	1200
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	1260
tggcagcagg	ggaacgtctt	ctcatgtctc	gtgatgcatg	aggctctgca	caaccactac	1320
acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2061

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2061

caggtgcagc	tggtaggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	caccttcagt	tactttggca	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	taaatactat	180
gcagacgccg	tgaagggccg	cttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gcgagatagg	300
acgatttttg	gagtgtctct	gggggactac	tggggccagg	gaaccctggg	caccgtctcc	360
tcagcctcca	ccaagggccc	atcgggtcttc	cccctggcac	cctcctccaa	gagcacctct	420

4358741_1

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gggggcacag cggccctggg ctgcctgggc aaggactact tccccgaacc ggtgacggtg      480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggtgtg cctacagtcc      540
tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcacccag      600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag      660
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ggaccgtcag tcttcctctt cccccaaaaa cccaaggaca ccctcatgat ctcccgacc      780
cctgaggtca catgcgtggg ggtggacgtg agccacgaag accctgaggt caagttcaac      840
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ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc      960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc     1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag     1080
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atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc     1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg     1260
tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggctctgca caaccactac     1320
acgcagaaga gcctctccct gtctccgggt aaa                                1353

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<210> 2062

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2062

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caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct     120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat     180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgtgtat     240
ctgcaaatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg     300
acgatctttg gagtggctct gggggactac tggggccagg gaaccctggg caccgtctcc     360
tcagcctcca ccaagggccc atcgggtctc cccctggcac cctcctcaa gagcacctct     420
gggggcacag cggccctggg ctgcctgggc aaggactact tccccgaacc ggtgacggtg     480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggtgtg cctacagtcc     540
tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcacccag     600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag     660
cccaaattct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg     720
ggaccgtcag tcttcctctt cccccaaaaa cccaaggaca ccctcatgat ctcccgacc     780

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4358741_1

cctgaggtca catgctggt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctcct gtctccgggt aaa	1353

<210> 2063

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2063

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tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgtgtat	240
ctgcaaatga acagcctgag agtcgcggac acggctgtgt attattgtgc gcgagatggg	300
acgatctttg gagtggctct gggggactac tggggccagg gaaccctggg caccgtctcc	360
tcagcctcca ccaagggccc atcggctctc cccctggcac cctcctcaa gagcacctct	420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcaccag	600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
cccaaactct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
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cctgaggtca catgctggt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080

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gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2064

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2064

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tcctgtgcag cgtctggatt cactttcagt aactttggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat	240
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tcgtggaact caggcgcctt gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag	600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
ggaccgtcag tcttctctct cccccaaaa cccaaggaca cctcatgat ctcccggacc	780
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tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

4358741_1

<210> 2065
 <211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2065
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 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
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 gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac 1140
 atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc 1200
 gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg 1260
 tggcagcagg ggaacgtctt ctcattgtcc gtgatgcatg aggctctgca caaccactac 1320
 acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 2066
 <211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2066
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60

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ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atggaagtaa	tgaaaactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	tacgctgtat	240
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atcgccgtgg	agtgggagag	caatgggcag	ccggagaaca	actacaagac	cacgcctccc	1200
gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	1260
tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	1320
acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2067

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2067

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tcctgtgcag	cgtctggatt	cactttcagt	aactttggca	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	tgaaaactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	tacgctgtat	240
ctgcaaatga	acagcctgag	agtcgaggac	acggctgtgt	attattgtgc	gcgagatagg	300
acgatctttg	gagtggctct	gggggactac	tggggccagg	gaaccctggg	caccgtctcc	360

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tcagcctcca ccaagggccc atcgggtcttc cccctggcac cctcctccaa gagcacctct	420
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gagatgacca agaaccaggt cagcctgacc tgcctgggtca aaggcttcta tcccagcgac	1140
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2068

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2068

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa tacgctgtat	240
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acgatctttg gagtgggtctt gggggactac tggggccagg gaaccctgggt caccgtctcc	360
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acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720

4358741_1

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ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccggacc      780
cctgagggtca catgcgtggg ggtggacgtg agccacgaag accctgaggt caagttcaac      840
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg     1260
tggcagcagg ggaacgtctt ctcattgctc gtgatgcatg aggctctgca caaccactac     1320
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<210> 2069

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2069

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa tgaaaactat     180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagcgtgtat     240
ctgcacatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg     300
acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggg caccgtctcc     360
tcagcctcca ccaagggccc atcggctctc cccctggcac cctcctcaa gagcacctct     420
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tccgggtgt cctacagtcc     540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag     600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag     660
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tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgtgtga ggagcagtac      900
ggcagcacgt accgtttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc      960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc     1020

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4358741_1

tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
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atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2070

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2070

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
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tcagcctcca ccaagggccc atcggtcttc cccctggcac cctcctccaa gagcacctct	420
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag	600
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acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2071
 <211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2071
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 gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
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 ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc 780
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 tggcagcagg ggaacgtctt ctcagtctcc gtgatgcatg aggctctgca caaccactac 1320
 acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 2072
 <211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 2072
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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
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acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 2073
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2073
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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat 180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
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4358741_1

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acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggt caccgtctcc 360
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gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg 480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc 540
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tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggtcttgca caaccactac 1320
acgcagaaga gcctctccct gtctccgggt aaa 1353

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<210> 2074

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2074

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4358741_1

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cctgaggtca	catgcgtggg	ggtggacgtg	agccacgaag	accctgaggt	caagttcaac	840
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tggcagcagg	ggaacgtctt	ctcatgtctc	gtgatgcatg	aggctctgca	caaccactac	1320
acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2075

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2075

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cccaaattctt	gtgacaaaac	tcacacatgc	ccaccgtgcc	cagcacctga	actcctgggg	720
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gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
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tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2076

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2076

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
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1353

<210> 2077

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2077

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa tgaaaactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	240
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acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2078

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

polynucleotide

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<400> 2078
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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat      180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgcggac acggctgtgt attactgtgc gagagatggg      300
acgatctttg gagtggctct gggggactac tggggccagg gaaccctggg caccgtctcc      360
tcagcctcca ccaagggccc atcggctctc cccctggcac cctcctccaa gagcacctct      420
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc      540
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atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc     1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg     1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac     1320
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<210> 2079

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polynucleotide

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<400> 2079
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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat      180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat      240

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4358741_1

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatagg	300
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tcagcctcca ccaagggccc atcgggtcttc cccctggcac cctcctccaa gagcacctct	420
gggggcacag cggccctggg ctgcctgggc aaggactact tccccgaacc ggtgacggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcaccag	600
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cctgaggtca catgcgtggg ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgtcc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2080

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2080

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa tgaaaactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatggg	300
acgatctttg gagtggctctt gggggactac tggggccagg gaaccctggg caccgtctcc	360
tcagcctcca ccaagggccc atcgggtcttc cccctggcac cctcctccaa gagcacctct	420
gggggcacag cggccctggg ctgcctgggc aaggactact tccccgaacc ggtgacggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcaccag	600

4358741_1

acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
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ggaccgtcag tcttcctctt cccccaaaaa cccaaggaca ccctcatgat ctcccggacc	780
cctgagggtca catgcggtgt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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ggcagcacgt accgtttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgtcc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2081

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2081

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
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acgatttttg gagtggttct tgactactgg ggccagggaa ccctggtcac cgtctcctca	360
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tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg aaaaaactca cacatgcccc ccgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcattgatctc ccggaccctt	780
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgtgtgagga gcagtacggc	900

4358741_1

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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa cactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2082

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2082

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagcgaca attccaagaa cagcgtgtat	240
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ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt	780
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gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag	1080
atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260

4358741_1

cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1320
 cagaagagcc tctccctgtc tccgggtaaa 1350

<210> 2083
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2083
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 gcagacgccg tgaagggccg attcaccatc tccagggaca attccaagaa cacgctgtat 240
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 atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc 1140
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 ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg 1260
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<210> 2084
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2084

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
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tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaactca cacatgccca ccgtgcccag cacctgaact cctgggggga	720
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gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
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gagtacaagt gcaagggtct caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag	1080
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcagggtg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa cactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2085

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2085

caggtgcaac tggaggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180

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gcagacgccg tgaagggccg attcaccatc tccagcgaca attccaagaa cacgctgtat	240
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acgatttttg gagtggttct tgactactgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
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aaatcttgtg acaaaaactca cacatgccca ccgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct	780
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
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gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccacgcagaa aaccatctcc	1020
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atgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2086

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2086

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tcctgtgcag cgtctggatt caccttcagt agctatggca tgactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
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tggaactcag gcgccctgac cagcggcgctg cacaccttcc cggctgtcct acagtcctca	540

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cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
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<210> 2087

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2087

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gcagacgccg	tgaagggccg	attcaccatc	tccagggaca	attccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatagg	300
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gcctccacca	aggggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	420
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cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2088

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2088

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cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2089
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2089	
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gcagacgccg tgaagggccg attcaccatc tccagggaca attccaagaa cacgctgtat	240
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2090
 <211> 1353
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2090

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat	240
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acgatttttg gagtgtctctt gggggactac tggggccagg gaaccctggt caccgtctcc	360
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2091

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2091

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tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct	120

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gcagacgccg	tgaagggccg	cttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gcgagatagg	300
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gtgctggact	ccgacggctc	cttcttcctc	tatagcaagc	tcaccgtgga	caagagcagg	1260
tggcagcagg	ggaacgtctt	ctcatgtctc	gtgatgcatg	aggctctgca	caaccactac	1320
acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2092

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2092

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ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	taaatactat	180
gcagacgccg	tgaagggccg	cttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
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tggcagcagg	ggaacgtctt	ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	1320
acgcagaaga	gcctctccct	gtctccgggt	aaa			1353

<210> 2093

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2093

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tcctgtgcag	cgtctggatt	caccttcagt	tactttggca	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	taaatactat	180
gcagacgccg	tgaagggccg	cttcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
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tcgtggaact	caggcgccct	gaccagcggc	gtgcacacct	tcccggctgt	cctacagtcc	540
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tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2094

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2094

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tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat	180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cagcgtgtat	240
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tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2095

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2095

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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cagcgtgtat	240
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acgatttttg gagtgtcttt gggggactac tggggccagg gaaccctgggt caccgtctcc	360
tcagcctcca ccaagggccc atcgggtcttc cccctggcac cctcctccaa gagcacctct	420
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aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
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gagatgacca agaaccaggt cagcctgacc tgcctgggtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2096

<211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2096
 caggtgcagc tgggtggagtc tgggggagggc gtggtccagc ctgggaggtc cctgagactc 60
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 ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
 gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
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 acgatttttg gagtgtctct gggggactac tggggccagg gaaccctggg caccgtctcc 360
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 tcgtggaact caggcgcctt gaccagcggc gtgcacacct tcccggctgt cctacagtcc 540
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 gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg 1260
 tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggctctgca caaccactac 1320
 acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 2097
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2097
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4358741_1

tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct	120
ccaggcaagg ggctggagt ggtggcagct atatggtatg atgcaaataa taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat	240
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acgatttttg gagtggtcct tgagtactgg ggccagggaa ccctggtcac cgtctcctca	360
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ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaactca cacatgccca ccgtgcccag cacctgaact cctgggggga	720
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gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
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agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	960
gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgccccatc ccgggaggag	1080
atgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2098

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2098

caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct	120
ccaggcaagg ggctggagt ggtggcagct atatggtatg atgcaaataa taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg	300
acgatttttg gagtggtcct tgagtactgg ggccagggaa ccctggtcac cgtctcctca	360
gcctccacca agggcccac ggtcttcccc ctggcaccct cctccaagag cacctctggg	420

4358741_1

ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	480
tggaactcag	gcgccctgac	cagcggcgctg	cacaccttcc	cggctgtcct	acagtcctca	540
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	cacccagacc	600
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaact	cctggggggga	720
ccgtcagtct	tcctcttccc	cccaaaaccc	aaggacaccc	tcctgatctc	ccggaccctt	780
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	840
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gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	1020
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atgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	1140
gccgtggagt	gggagagcaa	tgggcagccg	gagaacaact	acaagaccac	gcctcccgtg	1200
ctggactccg	acggctcctt	cttcctctat	agcaagctca	ccgtggacaa	gagcaggtgg	1260
cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2099

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2099

caggtgcagc	tggtggagtc	tgggggaggc	gtgggtccagc	ctgggagggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	ctccttcagt	agctatggca	tgcactgggt	ccgccagcct	120
ccaggcaagg	ggctggagtg	ggtggcagct	atatggtatg	atgcaaataa	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	gttccaagaa	cacgctgtat	240
ctgcaaataa	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatcgg	300
acgatttttg	gagtggctct	tgagtacctc	ggccagggaa	ccctggtcac	cgtctcctca	360
gcctccacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	420
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	480
tggaactcag	gcgccctgac	cagcggcgctg	cacaccttcc	cggctgtcct	acagtcctca	540
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	cacccagacc	600
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
aaatcttgtg	acaaaactca	cacatgcccc	ccgtgcccag	cacctgaact	cctggggggga	720

4358741_1

ccgtcagtct	tcctcttccc	cccaaacc	aaggacaccc	tcgatgatctc	ccggaccct	780
gaggtcacat	gcgtggtggt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	840
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgtgtgagga	gcagtacggc	900
agcacgtacc	gttgtgtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	960
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	1020
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggaggag	1080
atgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	1140
gccgtggagt	gggagagcaa	tgggcagccg	gagaacaact	acaagaccac	gcctcccgtg	1200
ctggactccg	acggctcctt	cttcctctat	agcaagctca	ccgtggacaa	gagcaggtgg	1260
cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2100

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2100

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tcctgtgcag	cgtctggatt	ctccttcagt	agctatggca	tgcactgggt	ccgccagcct	120
ccaggcaagg	ggctggagt	ggtggcagct	atatggtatg	atgcaaataa	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	gttccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatcgg	300
acgatttttg	gagtggctct	tgagtactgg	ggccagggaa	ccctggtcac	cgtctcctca	360
gcctccacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	420
ggcacagcgg	ccctgggctg	cctggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	480
tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	540
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tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
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gaggtcacat	gcgtggtggt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	840
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgtgtgagga	gcagtacggc	900
agcacgtacc	gttgtgtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	960
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	1020
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggaggag	1080

4358741_1

atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2101

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2101

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcactgggt ccgccagcct	120
ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat	240
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acgattttttg gagtggctct tgagtacctc ggccagggaa ccctggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
tggaactcag gcgccctgac cagcggcgctg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaactca cacatgcca ccgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct	780
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgtgtgagga gcagtacggc	900
agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	960
gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
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cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2102
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2102
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 tcctgtgcag cgtctggatt ctccttcagt agctatggca tgcaactgggt ccgccagcct 120
 ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaataactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat 240
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 acgattttttg gagtggctct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca 360
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 ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcattgatctc ccggaccctt 780
 gaggtcacat gcgtgggtggg ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg 840
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 agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 960
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 ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg 1260
 cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1320
 cagaagagcc tctccctgtc tccgggtaaa 1350

<210> 2103
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2103

4358741_1

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ccaggcaagg	ggctggagtg	ggtggcagct	atatggtatg	atgcaaataa	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	gttccaagaa	cacgctgtat	240
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agcacgtacc	gttgtgtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	960
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	1020
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atgaccaaga	accaggtcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	1140
gccgtggagt	gggagagcaa	tgggcagccg	gagaacaact	acaagaccac	gcctcccgtg	1200
ctggactccg	acggctcctt	cttcctctat	agcaagctca	ccgtggacaa	gagcaggtgg	1260
cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2104

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2104

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tcctgtgcag	cgtctggatt	ctccttcagt	agctatggca	tgcactgggt	ccgccagcct	120
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ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatcgg	300
acgatttttg	gagtggtcct	tgagtactgg	ggccagggaa	ccctggtcac	cgtctcctca	360

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gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg      420
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tggaactcag gcgccctgac cagcggcgctg cacaccttcc cggctgtcct acagtcctca      540
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cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg     1320
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<210> 2105

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2105

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caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc      60
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ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat      180
gcagactccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat      240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg      300
acgatttttg gagtggctct tgagtactgg ggccagggaa ccctgggtcac cgtctcctca      360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg      420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg      480
tggaactcag gcgccctgac cagcggcgctg cacaccttcc cggctgtcct acagtcctca      540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc      600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc      660

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4358741_1

aaatcttgtg	acaaaactca	cacatgccca	ccgtgcccag	cacctgaact	cctgggggga	720
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cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2106

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2106

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tcctgtgcag	cgtctggatt	ctccttcagt	agctatggca	tgcactgggt	ccgccagcct	120
ccaggcaagg	ggctggagtg	ggtggcagct	atatggtatg	atgcaaataa	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	gttccaagaa	cacgctgtat	240
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acgatttttg	gagtggctct	tgagtactgg	ggccagggaa	ccctgggtcac	cgtctcctca	360
gcctccacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	420
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggg	gacggtgtcg	480
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gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcagggtg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2107

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2107

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ccaggcaagg ggctggagtg ggtggcagct atatggtatg atgcaaataa taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca gttccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcgg	300
acgatttttg gagtggctct tgagtacctc ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggccccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
tggaaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaaactca cacatgcca ccggtgccag cacctgaact cctgggggga	720
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gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccacgcagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag	1080
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcagggtg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320

cagaagagcc tctccctgtc tccgggtaaa

1350

<210> 2108

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2108

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ccaggcaagg gactggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gaagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt	240
ctgcaagtga acagcctgag agccgaggac acggctgtgt attactgtgc gagagggatt	300
acgatttttg gtcattgggtt tgaatattgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaactca cacatgccca ccgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt	780
gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgtgtgagga gcagtacggc	900
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cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2109

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 2109
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
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ccaggcaagg gactggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat      180
gaagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt      240
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aaatcttgtg acaaaactca cacatgccc aagtgcccag cacctgaact cctgggggga      720
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg     1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa cactacacg     1320
cagaagagcc tctccctgtc tccgggtaaa                                     1350

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<210> 2110
<211> 1350
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
      polynucleotide

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<400> 2110
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ccaggcaagg gactggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat      180
gaagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt      240
ctgcaagtga acagcctgag agccgaggac acggctgtgt attactgtgc gagagggatt      300

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acgatttttg gtcattgggtt tgaatattgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
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tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
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cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2111

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2111

caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
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ccaggcaagg gactggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gaagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt	240
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tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	540
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aaatcttgtg	acaaaactca	cacatgccc	ccgtgcccag	cacctgaact	cctgggggga	720
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agcacgtacc	gttgtgtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	960
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cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2112

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2112

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tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
aaatcttgtg	acaaaactca	cacatgccc	ccgtgcccag	cacctgaact	cctgggggga	720
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2113

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2113

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ccaggcgagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
tggaaactcag gcgccctgac cagcggcggt cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaaactca cacatgccc aacgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt	780
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gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag	1080
atgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260

4358741_1

cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1320
 cagaagagcc tctccctgtc tccgggtaaa 1350

<210> 2114
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2114
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 ccaggcgagg ggctggagtg ggtggcagct atatggtttg atggaagtga taaatactat 180
 gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
 ctgcaaatac acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag 300
 gcgatttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca 360
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 ggacacagcg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg 480
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 tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc 660
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 agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 960
 gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc 1020
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 atgaccaaga accaggtcag cctgacctgc ctgggtcaag gcttctatcc cagcgacatc 1140
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 ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg 1260
 cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1320
 cagaagagcc tctccctgtc tccgggtaaa 1350

<210> 2115
 <211> 1350
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2115

caggtgcagc	tggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	catctggatt	caccttcagt	aactatggca	tgcactgggt	ccgccaggct	120
ccaggcgagg	ggctggagtg	ggtggcagct	atatggtttg	atgcaagtga	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	actccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatcag	300
gcgatttttg	gagtgggtccc	cgactactgg	ggccagggaa	ccctgggtcac	cgtctcctca	360
gcctccacca	agggcccac	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	420
ggcacagcgg	ccctgggctg	cctgggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	480
tggaactcag	gcgccctgac	cagcggcgctg	cacaccttcc	cggctgtcct	acagtcctca	540
ggactctact	ccctcagcag	cgtgggtgacc	gtgccctcca	gcagcttggg	caccagacc	600
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
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ccgtcagtct	tcctcttccc	ccaaaaccc	aaggacaccc	tcatgatctc	ccggaccctt	780
gaggtcacat	gcgtgggtgt	ggacgtgagc	cacgaagacc	ctgaggtcaa	gttcaactgg	840
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgtgtgagga	gcagtacggc	900
agcacgtacc	gttgtgtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	960
gagtacaagt	gcaaggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	1020
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atgaccaaga	accaggctcag	cctgacctgc	ctgggtcaaag	gcttctatcc	cagcgacatc	1140
gccgtggagt	gggagagcaa	tgggcagccg	gagaacaact	acaagaccac	gcctcccgtg	1200
ctggactccg	acggctcctt	cttcctctat	agcaagctca	ccgtggacaa	gagcaggtgg	1260
cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2116

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2116

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tcctgtgcag	catctggatt	caccttcagt	aactatggca	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagct	atatggtttg	atgcaagtga	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	actccaagaa	cacgctgtat	240

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ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgattttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg	480
tggaactcag gcgccctgac cagcggcggtg cacaccttcc cggctgtcct acagtcctca	540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaactca cacatgcca ccgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct	780
gaggtcacat gcgtgggtggg ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgtgtgagga gcagtacggc	900
agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	960
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aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgccccatc ccgggaggag	1080
atgaccaaga accaggctcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	1140
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcagggtg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2117

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2117

caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcaactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcag	300
gcgattttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg	480
tggaactcag gcgccctgac cagcggcggtg cacaccttcc cggctgtcct acagtcctca	540

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ggactctact	ccctcagcag	cgtggtgacc	gtgccctcca	gcagcttggg	cacccagacc	600
tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
aaatcttgtg	acaaaactca	cacatgccc	ccgtgcccag	cacctgaact	cctgggggga	720
ccgtcagtct	tcctcttccc	ccaaaaccc	aaggacaccc	tcatgatctc	ccggaccct	780
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agcacgtacc	gttgtgtcag	cgtcctcacc	gtcctgcacc	aggactggct	gaatggcaag	960
gagtacaagt	gcaagggtctc	caacaaagcc	ctcccagccc	ccatcgagaa	aaccatctcc	1020
aaagccaaag	ggcagccccg	agaaccacag	gtgtacaccc	tgcccccatc	ccgggaggag	1080
atgaccaaga	accaggtcag	cctgacctgc	ctggtcaaag	gcttctatcc	cagcgacatc	1140
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cagcagggga	acgtcttctc	atgctccgtg	atgcatgagg	ctctgcacaa	ccactacacg	1320
cagaagagcc	tctccctgtc	tccgggtaaa				1350

<210> 2118

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2118

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tcctgtgcag	catctggatt	caccttcagt	aactatggca	tgcactgggt	ccgccaggct	120
ccaggcgagg	ggctggagtg	ggtggcagct	atatggtttg	atgcaagtga	taaatactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	actccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatcag	300
gcgatttttg	gagtgggtccc	cgactactgg	ggccagggaa	ccctgggtcac	cgtctcctca	360
gcctccacca	agggcccatc	ggtcttcccc	ctggcaccct	cctccaagag	cacctctggg	420
ggcacagcgg	ccctgggctg	cctggtcaag	gactacttcc	ccgaaccggt	gacggtgtcg	480
tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	cggctgtcct	acagtcctca	540
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tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagaa	agttgagccc	660
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ccgtcagtct	tcctcttccc	ccaaaaccc	aaggacaccc	tcatgatctc	ccggaccct	780
gaggtcacat	gcgtggtggt	ggacgtgagc	cacgaagacc	ctgagggtcaa	gttcaactgg	840
tacgtggacg	gcgtggaggt	gcataatgcc	aagacaaagc	cgtgtgagga	gcagtacggc	900

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agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	960
gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag	1080
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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1320
cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2119

<211> 1350

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2119

caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag catctggatt caccttcagt aactatggca tgcaactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagct atatggtttg atgcaagtga taaatactat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca actccaagaa cacgctgtat	240
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gcgattttttg gagtgggtccc cgactactgg ggccagggaa ccctgggtcac cgtctcctca	360
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg	420
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg	480
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ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	600
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc	660
aaatcttgtg acaaaactca cacatgcca ccgtgcccag cacctgaact cctgggggga	720
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcattgatctc ccggaccctt	780
gaggtcacat gcgtgggtggg ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	840
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgtgtgagga gcagtacggc	900
agcacgtacc gttgtgtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	960
gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1020
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atgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	1140
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	1200

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ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg	1260
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cagaagagcc tctccctgtc tccgggtaaa	1350

<210> 2120
 <211> 1368
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2120	
caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcagagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtggtggtt actactggag ctggatccgc	120
cagccccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt gggtatgggg ggcggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctcagc ctccaccaag ggcccatcgg tcttccccct ggcaccctcc	420
tccaagagca cctctggggg cacagcggcc ctgggctgcc tgggtcaagga ctacttcccc	480
gaaccggtga cgggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttcccg	540
gctgtcctac agtcctcagg actctactcc ctcagcagcg tggtgaccgt gccctccagc	600
agcttgggca cccagaccta catctgcaac gtgaatcaca agcccagcaa caccaaggtg	660
gacaagaaag ttgagccaa atcttgtgac aaaactcaca catgcccacc gtgcccagca	720
cctgaactcc tgggggggacc gtcagtcttc ctcttcccc caaaaccaa ggacaccctc	780
atgatctccc ggaccctga ggtcacatgc gtggtggtgg acgtgagcca cgaagaccct	840
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tgtgaggagc agtacggcag cacgtaccgt tgtgtcagcg tcctcaccgt cctgcaccag	960
gactggctga atggcaagga gtacaagtgc aaggtctcca acaaagccct cccagcccc	1020
atcgagaaaa ccatctcaa agccaaaggg cagccccgag aaccacaggt gtacaccctg	1080
cccccatccc gggaggagat gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc	1140
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aagaccacgc ctcccgtgct ggactccgac ggctccttct tcctctatag caagctcacc	1260
gtggacaaga gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgaggct	1320
ctgcacaacc actacacgca gaagagcctc tccctgtctc cgggtaaa	1368

<210> 2121
 <211> 1368
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2121

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcagagac cctgtccctc	60
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cagccccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt gggtatgggg ggcggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctcagc ctccaccaag ggcccatcgg tcttccccct ggcaccctcc	420
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gaaccggtga cggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttcccc	540
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agcttgggca cccagaccta catctgcaac gtgaatcaca agcccagcaa caccaagggtg	660
gacaagaaag ttgagcccaa atcttgtgac aaaactcaca catgcccacc gtgcccagca	720
cctgaactcc tggggggacc gtcagtcttc ctcttcccc caaaaccaa ggacaccctc	780
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tgtgaggagc agtacggcag cacgtaccgt tgtgtcagcg tcctcaccgt cctgcaccag	960
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atcgagaaaa ccatctccaa agccaaaggg cagccccgag aaccacaggt gtacaccctg	1080
cccccatccc gggaggagat gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc	1140
ttctatccca gcgacatcg cgtggagtgg gagagcaatg ggcagccgga gaacaactac	1200
aagaccacgc ctcccgtgct ggactccgac ggctccttct tcctctatag caagctcacc	1260
gtggacaaga gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgaggct	1320
ctgcacaacc actacacgca gaagagcctc tcctgtctc cgggtaaa	1368

<210> 2122

<211> 1368

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2122

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc	120
cagccccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180

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tacaacccgt	ccctcaagag	tcgagttacc	atatcagtag	acacgtctaa	gaaccagttc	240
tccctgaagc	tgagctctgt	gactgccgcg	gacacggccg	tgtattactg	tgcgagagat	300
cgtattacga	tttttggagt	ggttatgggg	ggcggtatgg	acgtctgggg	ccaagggacc	360
acggtcaccg	tctcctcagc	ctccaccaag	ggcccatcgg	tcttccccct	ggcacccctcc	420
tccaagagca	cctctggggg	cacagcggcc	ctgggctgcc	tgggtcaagga	ctacttcccc	480
gaaccggtga	cggtgtcgtg	gaactcaggc	gccctgacca	gcggcgtgca	caccttcccc	540
gctgtcctac	agtcctcagg	actctactcc	ctcagcagcg	tgggtgaccgt	gccctccagc	600
agcttgggca	cccagaccta	catctgcaac	gtgaatcaca	agcccagcaa	caccaaggtg	660
gacaagaaa	ttgagcccaa	atcttgtgac	aaaactcaca	catgcccacc	gtgcccagca	720
cctgaactcc	tggggggacc	gtcagtcttc	ctcttcccc	caaaacccaa	ggacaccctc	780
atgatctccc	ggaccctga	ggtcacatgc	gtgggtggtg	acgtgagcca	cgaagaccct	840
gaggtcaagt	tcaactggta	cgtggacggc	gtggaggtgc	ataatgccaa	gacaaagccg	900
tgtgaggagc	agtacggcag	cacgtaccgt	tgtgtcagcg	tcctcaccgt	cctgcaccag	960
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atcgagaaaa	ccatctccaa	agccaaagg	cagccccgag	aaccacaggt	gtacaccctg	1080
cccccatccc	gggaggagat	gaccaagaac	caggtcagcc	tgacctgcct	ggtcaaaggc	1140
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aagaccacgc	ctcccgtgct	ggactccgac	ggctccttct	tcctctatag	caagctcacc	1260
gtggacaaga	gcaggtggca	gcaggggaac	gtcttctcat	gctccgtgat	gcatgaggct	1320
ctgcacaacc	actacacgca	gaagagcctc	tcctgtcttc	cgggtaaa		1368

<210> 2123

<211> 1368

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2123

caggtgcagt	tgaggagtc	gggcccagga	ctggtgaagc	cttcagagac	cctgtccctc	60
acctgcactg	tctctggtga	ctccatcagc	agtggtggtt	actactggag	ctggatccgc	120
cagcacccag	ggaagggcct	ggagtggatt	gggtacatct	attacagtgg	gagcacctac	180
tacaacccgt	ccctcaagag	tcgagttacc	atatcagtag	acacgtctaa	gaaccagttc	240
tccctgaagc	tgagctctgt	gactgccgcg	gacacggccg	tgtattactg	tgcgagagat	300
cgtattacga	tttttggagt	ggttatgggg	ggcggtatgg	acgtctgggg	ccaagggacc	360
acggtcaccg	tctcctcagc	ctccaccaag	ggcccatcgg	tcttccccct	ggcacccctcc	420
tccaagagca	cctctggggg	cacagcggcc	ctgggctgcc	tgggtcaagga	ctacttcccc	480

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gaaccggtga	cgggtgtcgtg	gaactcaggc	gccctgacca	gcggcgtgca	caccttcccc	540
gctgtcctac	agtcctcagg	actctactcc	ctcagcagcg	tggtgaccgt	gccctccagc	600
agcttgggca	cccagaccta	catctgcaac	gtgaatcaca	agcccagcaa	caccaaggtg	660
gacaagaaag	ttgagcccaa	atcttgtgac	aaaactcaca	catgcccacc	gtgcccagca	720
cctgaactcc	tggtggggacc	gtcagtcttc	ctcttcccc	caaaacccaa	ggacaccctc	780
atgatctccc	ggaccctga	ggtcacatgc	gtggtggtgg	acgtgagcca	cgaagaccct	840
gaggtcaagt	tcaactggta	cgtggacggc	gtggaggtgc	ataatgcaa	gacaaagccg	900
tgtgaggagc	agtacggcag	cacgtaccgt	tgtgtcagcg	tcctcaccgt	cctgcaccag	960
gactggctga	atggcaagga	gtacaagtgc	aaggtctcca	acaaagccct	cccagcccc	1020
atcgagaaaa	ccatctccaa	agccaaaggg	cagccccgag	aaccacaggt	gtacaccctg	1080
cccccatccc	gggaggagat	gaccaagaac	caggtcagcc	tgacctgcct	ggtcaaaggc	1140
ttctatccca	gcgacatcgc	cgtggagtgg	gagagcaatg	ggcagccgga	gaacaactac	1200
aagaccacgc	ctcccgtgct	ggactccgac	ggctccttct	tcctctatag	caagctcacc	1260
gtggacaaga	gcaggtggca	gcaggggaac	gtcttctcat	gctccgtgat	gcatgaggct	1320
ctgcacaacc	actacacgca	gaagagcctc	tccctgtctc	cgggtaaa		1368

<210> 2124

<211> 1368

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2124

caggtgcagt	tgaggagtc	gggcccagga	ctggtgaagc	cttcacagac	cctgtccctc	60
acctgcactg	tctctgggtg	ctccatcagc	agtgggtggtt	actactggag	ctggatccgc	120
cagcaccag	ggaagggcct	ggagtggatt	gggtacatct	attacagtgg	gagcacctac	180
tacaacccgt	ccctcaagag	tcgagttacc	atatcagtag	acacgtctaa	gaaccagttc	240
tccctgaagc	tgagctctgt	gactgccgcg	gacacggccg	tgtattactg	tgcgagagat	300
cgtattacga	tttttggagt	ggttatgggg	ggcggtatgg	acgtctgggg	ccaagggacc	360
acggtcaccg	tctcctcagc	ctccaccaag	ggcccatcgg	tcttccccct	ggcaccctcc	420
tccaagagca	cctctggggg	cacagcggcc	ctgggctgcc	tggtcaagga	ctacttcccc	480
gaaccggtga	cgggtgtcgtg	gaactcaggc	gccctgacca	gcggcgtgca	caccttcccc	540
gctgtcctac	agtcctcagg	actctactcc	ctcagcagcg	tggtgaccgt	gccctccagc	600
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gacaagaaag	ttgagcccaa	atcttgtgac	aaaactcaca	catgcccacc	gtgcccagca	720
cctgaactcc	tggtggggacc	gtcagtcttc	ctcttcccc	caaaacccaa	ggacaccctc	780
atgatctccc	ggaccctga	ggtcacatgc	gtggtggtgg	acgtgagcca	cgaagaccct	840

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gaggtcaagt tcaactggta cgtggacggc gtggaggtgc ataatgccaa gacaaagccg	900
tgtgaggagc agtacggcag cacgtaccgt tgtgtcagcg tcctcaccgt cctgcaccag	960
gactggctga atggcaagga gtacaagtgc aaggtctcca acaaagccct cccagcccc	1020
atcgagaaaa ccatctccaa agccaaaggg cagccccgag aaccacaggt gtacaccctg	1080
cccccatccc gggaggagat gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc	1140
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aagaccacgc ctcccgtgct ggactccgac ggctccttct tcctctatag caagctcacc	1260
gtggacaaga gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgaggct	1320
ctgcacaacc actacacgca gaagagcctc tccctgtctc cgggtaaa	1368

<210> 2125

<211> 1368

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2125

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcagagac cctgtccctc	60
acctgcactg tctctgggtga ctccatcagc agtgggtggtt actactggag ctggatccgc	120
cagcaccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaaccctg ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt gggtatgggg ggcgggtatgg acgtctgggg ccaagggacc	360
acggtcaccg tctcctcagc ctccaccaag ggcccatcgg tcttccccct ggcaccctcc	420
tccaagagca cctctggggg cacagcggcc ctgggctgcc tgggtcaagga ctacttcccc	480
gaaccggtga cggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttcccc	540
gctgtcctac agtcctcagg actctactcc ctcagcagcg tggtgaccgt gccctccagc	600
agcttgggca cccagaccta catctgcaac gtgaatcaca agcccagcaa caccaagggtg	660
gacaagaaaag ttgagcccaa atcttgtgac aaaactcaca catgcccacc gtgcccagca	720
cctgaactcc tgggggggacc gtcagtcttc ctcttcccc caaaacccaa ggacaccctc	780
atgatctccc ggaccctga ggtcacatgc gtgggtggtgg acgtgagcca cgaagaccct	840
gaggtcaagt tcaactggta cgtggacggc gtggaggtgc ataatgccaa gacaaagccg	900
tgtgaggagc agtacggcag cacgtaccgt tgtgtcagcg tcctcaccgt cctgcaccag	960
gactggctga atggcaagga gtacaagtgc aaggtctcca acaaagccct cccagcccc	1020
atcgagaaaa ccatctccaa agccaaaggg cagccccgag aaccacaggt gtacaccctg	1080
cccccatccc gggaggagat gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc	1140

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ttctatccca gcgacatcgc cgtggagtgg gagagcaatg ggcagccgga gaacaactac	1200
aagaccacgc ctcccgtgct ggactccgac ggctccttct tcctctatag caagctcacc	1260
gtggacaaga gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgaggct	1320
ctgcacaacc actacacgca gaagagcctc tccctgtctc cgggtaaa	1368

<210> 2126

<211> 1368

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2126

caggtgcagt tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc	60
acctgcactg tctctggtga ctccatcagc agtgggtggtt actactggag ctggatccgc	120
cagccccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac	180
tacaaccctg ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgag gacacggccg tgtattactg tgcgagagat	300
cgtattacga tttttggagt gggttatggg ggcgggtatg acgtctgggg ccaagggacc	360
acggtcaccg tctcctcagc ctccaccaag ggcccatcgg tcttccccct ggcaccctcc	420
tccaagagca cctctggggg cacagcggcc ctgggctgcc tgggtcaagga ctacttcccc	480
gaaccggtga cgggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttcccc	540
gctgtcctac agtcctcagg actctactcc ctacagcagc tgggtgaccgt gccctccagc	600
agcttgggca cccagaccta catctgcaac gtgaatcaca agcccagcaa caccaaggtg	660
gacaagaaag ttgagcccaa atcttgtgac aaaactcaca catgcccacc gtgcccagca	720
cctgaactcc tgggggggacc gtcagtcttc ctcttcccc caaaacccaa ggacaccctc	780
atgatctccc ggaccctga ggtcacatgc gtgggtggtg acgtgagcca cgaagaccct	840
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tgtgaggagc agtacggcag cacgtaccgt tgtgtcagcg tcctcaccgt cctgcaccag	960
gactggctga atggcaagga gtacaagtgc aaggtctcca acaaagccct cccagcccc	1020
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cccccatccc gggaggagat gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc	1140
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aagaccacgc ctcccgtgct ggactccgac ggctccttct tcctctatag caagctcacc	1260
gtggacaaga gcaggtggca gcaggggaac gtcttctcat gctccgtgat gcatgaggct	1320
ctgcacaacc actacacgca gaagagcctc tccctgtctc cgggtaaa	1368

<210> 2127

<211> 1359

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<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2127

caggtgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tccactgggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggggtg	atcaaccctg	aaagtgggtg	cacagactat	180
tcacagaggt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	acaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccaggggaa	cctgggtcacc	360
gtctcctcag	cctccaccaa	gggcccacgc	gtcttcccc	tggcaccctc	ctccaagagc	420
acctctgggg	gcacagcggc	cctgggctgc	ctgggtcaagg	actacttccc	cgaaccgggtg	480
acgggtgtcgt	ggaactcagg	cgccctgacc	agcggcgtgc	acaccttccc	ggctgtccta	540
cagtcctcag	gactctactc	cctcagcagc	gtggtgaccg	tgccctccag	cagcttgggc	600
accagagact	acatctgcaa	cgtgaatcac	aagcccagca	acaccaaggt	ggacaagaaa	660
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aatggcaagg	agtacaagtg	caagggtctcc	aacaaagccc	tcccagcccc	catcgagaaa	1020
accatctcca	aagccaaagg	gcagccccga	gaaccacagg	tgtacaccct	gcccccatcc	1080
cgggaggaga	tgaccaagaa	ccaggtcagc	ctgacctgcc	tgggtcaaagg	cttctatccc	1140
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cctcccgtgc	tggactccga	cggctccttc	ttcctctata	gcaagctcac	cgtggacaag	1260
agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcattgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2128

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2128

caggtgccgc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tccactgggt	gcgacaggcc	120

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cctggacaag	ggcttgagtg	gatgggggtg	atcaaccctg	aaagtgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	acaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccaggggaa	cctggtcacc	360
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acccagacct	acatctgcaa	cgtgaatcac	aagcccagca	acaccaaggt	ggacaagaaa	660
gttgagccca	aatcttgtga	caaaactcac	acatgcccac	cgtgcccagc	acctgaactc	720
ctgggggggac	cgtcagtctt	cctcttcccc	ccaaaaccca	aggacaccct	catgatctcc	780
cggacccctg	aggtcacatg	cgtgggtggtg	gacgtgagcc	acgaagacc	tgaggtcaag	840
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cgggaggaga	tgaccaagaa	ccaggtcagc	ctgacctgcc	tgggtcaaagg	cttctatccc	1140
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cctcccgtgc	tggactccga	cggctccttc	ttcctctata	gcaagctcac	cgtggacaag	1260
agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcattgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2129

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2129

caggtgcagc	tgggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tccactgggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggggtg	atcaaccctg	acgctgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	acaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccaggggaa	cctggtcacc	360
gtctcctcag	cctccaccaa	gggcccacg	gtcttcccc	tggcaccctc	ctccaagagc	420

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cagtcctcag	gactctactc	cctcagcagc	gtggtgaccg	tgccctccag	cagcttgggc	600
accagacct	acatctgcaa	cgtgaatcac	aagcccagca	acaccaaggt	ggacaagaaa	660
gttgagccca	aatcttgtga	caaaactcac	acatgcccac	cgtgcccagc	acctgaactc	720
ctgggggggac	cgtcagtctt	cctcttcccc	ccaaaaccca	aggacaccct	catgatctcc	780
cggacccttg	aggtcacatg	cgtgggtgtg	gacgtgagcc	acgaagacc	tgaggtcaag	840
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cagtacggca	gcacgtaccg	ttgtgtcagc	gtcctcaccg	tcctgcacca	ggactggctg	960
aatggcaagg	agtacaagt	caaggtctcc	aacaaagccc	tcccagcccc	catcgagaaa	1020
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cgggaggaga	tgaccaagaa	ccaggtcagc	ctgacctgcc	tgggtcaaagg	cttctatccc	1140
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cctcccgtgc	tggactccga	cggctccttc	ttcctctata	gcaagctcac	cgtggacaag	1260
agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcatgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2130

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2130

caggtgccgc	tgggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tccactgggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggggtg	atcaaccctg	acgctgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	acaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccaggggaa	cctggtcacc	360
gtctcctcag	cctccaccaa	gggcccacg	gtcttcccc	tggcaccctc	ctccaagagc	420
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
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<210> 2131

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2131

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cctggacaag ggcttgagtg gatgggggtg atcaaccctg acagtgggtg cacagactat	180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac	240
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acgatttttg gaatggttat tgtaccgttt gactactggg gccagggaac cctggtcacc	360
gtctcctcag cctccacaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
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aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
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<210> 2132

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2132

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agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcatgaggc	tctgcacaac	1320
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<210> 2133
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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 tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
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 acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaa cctggtcacc 360
 gtctcctcag cctccacaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc 420
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 acgggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta 540
 cagtcctcag gactctactc cctcagcagc gtgggtgaccg tgcctccag cagcttgggc 600
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<210> 2134
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2134
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cctggacaag	ggcttgagt	gatgggggtg	atcaaccctg	acgctgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
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agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcattgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2135

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2135

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cctggacaag	ggcttgagt	gatgggggtg	atcaaccctg	acgctgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	acaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccaggggaa	cctgggtcacc	360

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<210> 2136

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2136

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cctggacaag ggcttgagtg gatgggggtg atcaaccctg acgctgggtg cacagactat 180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
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<210> 2137

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2137

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agcagggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
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<210> 2138

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2138

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cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga aacaagctat	180
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<210> 2139
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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 agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcatgaggc tctgcacaac 1320
 cactacacgc agaagagcct ctccctgtct ccgggtaaa 1359

<210> 2140
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

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<400> 2140
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cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga aacaagctat      180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat      240
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acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg      480
acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta      540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc      600
accagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa      660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc      720
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cggaccctg aggtcacatg cgtgggtgtg gacgtgagcc acgaagacc tgaggtcaag      840
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cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc      1140
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cctcccgtgc tggactccga cggctcctt ttctctata gcaagctcac cgtggacaag      1260
agcagggtgg agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac      1320
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<210> 2141

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

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<400> 2141
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tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc      120
cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga aacaagctat      180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat      240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc      300

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4358741_1

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acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctgggtcacc 360
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acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg 480
acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta 540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc 600
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gttgagccca aatcttgtga caaaactcac acatgcccac cgtgcccagc acctgaactc 720
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cggacccttg aggtcacatg cgtgggtggtg gacgtgagcc acgaagacc tgaggtcaag 840
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg 960
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cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc 1140
agcgacatcg ccgtggagt ggagagcaat gggcagccgg agaacaacta caagaccacg 1200
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<210> 2142

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2142

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caggtgccgc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
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cctggacaag ggcttgtgtg gatggggtg atcagcccta acagtgggtg cacaagctat 180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc 300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctgggtcacc 360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc 420
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acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta 540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc 600
acctagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa 660

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4358741_1

gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtcctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780
cggacccttg aggtcacatg cgtgggtggtg gacgtgagcc acgaagaccc tgaggtcaag	840
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
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cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
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<210> 2143

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2143

caggtgccgc tggtagatc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtg aacaagctat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtac gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctggtcacc	360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg	480
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cagtcctcag gactctactc cctcagcagc gtgggtgaccg tgccctccag cagcttgggc	600
accagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtcctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780
cggacccttg aggtcacatg cgtgggtggtg gacgtgagcc acgaagaccc tgaggtcaag	840
ttcaactggt acgtggacgg cgtggaggtg cataatgcca agacaaagcc gtgtgaggag	900
cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960

4358741_1

aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
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cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2144

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2144

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tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgtgtg gatgggggtg atcagcccta acagtgggtga cacaagctat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccgggtg	480
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accagacatc acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
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cagtacggca gcacgtaccg ttgtgtcagc gtcttcaccg tcctgcacca ggactggctg	960
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accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320

cactacacgc agaagagcct ctccctgtct ccgggtaaa

1359

<210> 2145

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2145

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tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagtg gatgggggtg atcagcccta acagtgggtga aacaagctat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagcctgag atctgacgac acggccgtgt atttctgtgc gagagaggcc	300
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gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccgggtg	480
acgggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
cagtcctcag gactctactc cctcagcagc gtgggtgaccg tgccctccag cagcttgggc	600
accagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc caaaaccca aggacaccct catgatctcc	780
cggacccctg aggtcacatg cgtgggtggtg gacgtgagcc acgaagacc tgaggtcaag	840
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
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cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2146

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

4358741_1

polynucleotide

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<400> 2146
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cctggacaag ggcttgagtg gatgggggtg atcagcccta acagtgggtga aacaagctat      180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat      240
atggagctga gcagactgag atctgacgac acggccgtgt atttctgtgc gagagaggcc      300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc      360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc      420
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cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc      600
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gttgagccca aatcttgtag caaaactcac acatgccac cgtagccagc acctgaactc      720
ctgggggggac cgtcagtctt cctcttcccc caaaaccca aggacaccct catgatctcc      780
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg      960
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cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc     1140
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cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag     1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac     1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa                               1359

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<210> 2147

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polynucleotide

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<400> 2147
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cctggacaag gacttgagtg gatgggggtg atcaaccctg aaagtgggtg cacagactat      180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac      240

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4358741_1

atggaactga	gcaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccagggaac	cctggtcacc	360
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accagacact	acatctgcaa	cgtgaatcac	aagcccagca	acaccaaggt	ggacaagaaa	660
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cagtacggca	gcacgtaccg	ttgtgtcagc	gtcctcaccg	tcctgcacca	ggactggctg	960
aatggcaagg	agtacaagtg	caaggtctcc	aacaaagccc	tcccagcccc	catcgagaaa	1020
accatctcca	aagccaaagg	gcagccccga	gaaccacagg	tgtacaccct	gcccccatcc	1080
cgggaggaga	tgaccaagaa	ccaggtcagc	ctgacctgcc	tgggtcaaagg	cttctatccc	1140
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cctcccgtgc	tggactccga	cggctccttc	ttcctctata	gcaagctcac	cgtggacaag	1260
agcagggtgg	agcaggggaa	cgtcttctca	tgctccgtga	tgcattgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2148

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2148

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tcctgcaagg	cttctggata	caccttcacc	ggctactata	tccactgggt	gcgacaggcc	120
cctggacaag	gacttgagtg	gatgggggtg	atcaaccctg	aaagtgggtg	cacagactat	180
tcacagaggt	ttcagggcag	gttcaccatg	accagggaca	cgtccatcag	cacagcctac	240
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acgggtgtcgt	ggaactcagg	cgccctgacc	agcggcgtgc	acaccttccc	ggctgtccta	540
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
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<210> 2149

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2149

caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
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cctggacaag gacttgagt gatggggtg atcaaccctg acagtgggtg cacagactat	180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac	240
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acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaa cctggtcacc	360
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acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
cagtcctcag gactctact cctcagcagc gtggtgaccg tgccctccag cagcttgggc	600
accagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgcccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780
cggacccttg aggtcacatg cgtggtggtg gacgtgagcc acgaagacc tgaggtcaag	840
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cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2150

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2150

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cctggacaag	gacttgagtg	gatgggggtg	atcaaccctg	aaagtgggtg	cacagactat	180
tcacagaggt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggaactga	gcagcctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatggttat	tgtaccgttt	gactactggg	gccaggggaa	cctggtcacc	360
gtctcctcag	cctccaccaa	gggcccatcg	gtcttccccc	tggcaccctc	ctccaagagc	420
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cagtcctcag	gactctactc	cctcagcagc	gtgggtgaccg	tgccctccag	cagcttgggc	600
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cctcccgtgc	tggactccga	cggctccttc	ttcctctata	gcaagctcac	cgtggacaag	1260

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agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
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<210> 2151
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

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cctggacaag gacttgagtg gatgggggtg atcaaccctg aaagtgggtg cacagactat	180
tcacagaggt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac	240
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acgatttttg gaatggttat tgtaccgttt gactactggg gccaggggaa cctgggtcacc	360
gtctcctcag cctccacaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
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acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgcctccag cagcttgggc	600
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cggacccttg aggtcacatg cgtgggtggtg gacgtgagcc acgaagacc tgagggtcaag	840
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cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2152
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

4358741_1

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2152

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cctggacaag	ggcttgagt	gatgggggtg	ataagcccta	accaagggtga	aacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
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acgattttttg	gaatgcttat	tgtaccattt	gactactggg	gccaggggaa	cctgggtcacc	360
gtctcctcag	cctccaccaa	gggcccacg	gtcttcccc	tggcaccctc	ctccaagagc	420
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acggtgtcgt	ggaactcagg	cgccctgacc	agcggcgtgc	acaccttccc	ggctgtccta	540
cagtcctcag	gactctactc	cctcagcagc	gtggtgaccg	tgccctccag	cagcttgggc	600
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gttgagccca	aatcttgtag	caaaactcac	acatgccac	cgtgcccagc	acctgaactc	720
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agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcatgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2153

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2153

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tcctgcaagg	cttctggata	caccttcacc	ggctactata	tacactgggt	gcgtcaggcc	120
cctggacaag	ggcttgagt	gatgggggtg	ataagcccta	accaagggtga	cacaaactat	180

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gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
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acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaac cctgggtcacc	360
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cagtcctcag gactctactc cctcagcagc gtgggtgaccg tgccctccag cagcttgggc	600
acccagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc caaaaccca aggacaccct catgatctcc	780
cggacccctg aggtcacatg cgtgggtggtg gacgtgagcc acgaagaccc tgagggtcaag	840
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agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcatgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2154

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2154

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cctggacaag ggcttgagt gatgggggtg ataagcccta accaagggtga aacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtac gagagaggcc	300
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gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
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<210> 2155

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2155

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cctggacaag ggcttgagtg gatgggggtg ataagcccta acaatggtga aacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
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gttgagccca aatcttgtga caaaactcac acatgcccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780
cggacccctg aggtcacatg cgtggtggtg gacgtgagcc acgaagaccg tgaggtcaag	840

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aatggcaagg agtacaagtg caaggtctcc aacaaagccc	tcccagcccc catcgagaaa	1020
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cactacacgc agaagagcct ctccctgtct ccgggtaaa		1359

<210> 2156

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2156

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cctggacaag ggcttgagtg gatgggggtg ataagcccta	acaatggtga cacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca	cgtccatcag cacagcctat	240
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aatggcaagg agtacaagtg caaggtctcc aacaaagccc	tcccagcccc catcgagaaa	1020
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cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc	tgggtcaaagg cttctatccc	1140
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cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2157
 <211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2157	
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gcacagaagt ttcaggacag ggtcaccatg accagggaac cgtccatcag cacagcctat	240
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acgatttttg gaatgcttat tgtaccattt gactactggg gccagggaac cctggtcacc	360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg	480
acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
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accagacct acatctgcaa cgtgaatcac aagcccagca acaccaagggt ggacaagaaa	660
gttgagccca aatcttctga caaaactcac acatgcccac cgtgcccagc acctgaactc	720
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cggacccctg aggtcacatg cgtgggtggtg gacgtgagcc acgaagacc tgagggtcaag	840
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagt caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
agcgacatcg ccgtggagt ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctccttc ttcctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2158
 <211> 1359
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2158

caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
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cctggacaag ggcttgagtg gatgggggtg ataagcccta acaatgggtga aacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtac gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360
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acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccgggtg	480
acgggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc	600
accagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgcccac cgtgcccagc acctgaactc	720
ctggggggac cgtcagtctt cctcttcccc caaaaccca aggacaccct catgatctcc	780
cggaccctg aggtcacatg cgtgggtgtg gacgtgagcc acgaagacc tgaggtcaag	840
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggctcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctcctt ttctctata gcaagctcac cgtggacaag	1260
agcagggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2159

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2159

caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120

4358741_1

cctggacaag	ggcttgagtg	gatgggggtgg	ataagcccta	accaaggtga	aacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
atggagctga	gcaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatgcttat	tgtaccattt	gactactggg	gccagggaac	cctggtcacc	360
gtctcctcag	cctccaccaa	gggcccacg	gtcttcccc	tggcaccctc	ctccaagagc	420
acctctgggg	gcacagcggc	cctgggctgc	ctgggtcaagg	actacttccc	cgaaccgggtg	480
acggtgtcgt	ggaactcagg	cgccctgacc	agcggcgtgc	acaccttccc	ggctgtccta	540
cagtcctcag	gactctactc	cctcagcagc	gtggtgaccg	tgccctccag	cagcttgggc	600
accagacct	acatctgcaa	cgtgaatcac	aagcccagca	acaccaaggt	ggacaagaaa	660
gttgagccca	aatcttgtga	caaaactcac	acatgccac	cgtgcccagc	acctgaactc	720
ctgggggggac	cgtcagtctt	cctcttcccc	ccaaaaccca	aggacaccct	catgatctcc	780
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aatggcaagg	agtacaagtg	caaggtctcc	aacaaagccc	tcccagcccc	catcgagaaa	1020
accatctcca	aagccaaagg	gcagccccga	gaaccacagg	tgtacaccct	gccccatcc	1080
cgggaggaga	tgaccaagaa	ccaggctcagc	ctgacctgcc	tgggtcaaagg	cttctatccc	1140
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cctcccgtgc	tggactccga	cggctccttc	ttcctctata	gcaagctcac	cgtggacaag	1260
agcaggtggc	agcaggggaa	cgtcttctca	tgctccgtga	tgcattgaggc	tctgcacaac	1320
cactacacgc	agaagagcct	ctccctgtct	ccgggtaaa			1359

<210> 2160

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2160

caggtgccgc	tgggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tacactgggt	gcgtcaggcc	120
cctggacaag	ggcttgagtg	gatgggggtgg	ataagcccta	acaatgggtga	cacaaactat	180
gcacagaagt	ttcaggacag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctat	240
atggagctga	gcaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagagaggcc	300
acgatttttg	gaatgcttat	tgtaccattt	gactactggg	gccagggaac	cctggtcacc	360
gtctcctcag	cctccaccaa	gggcccacg	gtcttcccc	tggcaccctc	ctccaagagc	420
acctctgggg	gcacagcggc	cctgggctgc	ctgggtcaagg	actacttccc	cgaaccgggtg	480

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acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc	600
acccagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780
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ttcaactggg acgtggacgg cgtggagggtg cataatgcca agacaaagcc gtgtgaggag	900
cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggctctc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctccttc ttcctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2161

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2161

caggtgccgc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagtg gatgggggtg ataagcccta accaagggtga cacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
acctctgggg gcacagcggc cctgggctgc ctggtcaagg actacttccc cgaaccgggtg	480
acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta	540
cagtcctcag gactctactc cctcagcagc gtggtgaccg tgccctccag cagcttgggc	600
acccagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780

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ttcaactggt acgtggacgg cgtggaggtg cataatgcca agacaaagcc gtgtgaggag	900
cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctccttc ttcctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtctttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2162

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2162

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tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagtg gatgggggtg ataagcccta acaatggtga aacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
acgatttttg gaatgcttat tgtaccattt gactactggg gccaggggaa cctgggtcacc	360
gtctcctcag cctccaccaa gggcccatcg gtcttcccc tggcaccctc ctccaagagc	420
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gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	780
cggacccctg aggtcacatg cgtggtggtg gacgtgagcc acgaagaccc tgaggtcaag	840
ttcaactggt acgtggacgg cgtggaggtg cataatgcca agacaaagcc gtgtgaggag	900
cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
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cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140

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agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2163

<211> 1359

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2163

caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc	120
cctggacaag ggcttgagtg gatgggggtg ataagcccta accaagggtga aacaaactat	180
gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat	240
atggagctga gcagcctgag atctgacgac acggccgtgt attactgtgc gagagaggcc	300
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acctctgggg gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg	480
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acccagacct acatctgcaa cgtgaatcac aagcccagca acaccaagggt ggacaagaaa	660
gttgagccca aatcttgtga caaaactcac acatgcccac cgtgcccagc acctgaactc	720
ctgggggggac cgtcagtctt cctcttcccc caaaaccca aggacaccct catgatctcc	780
cggacccctg aggtcacatg cgtgggtggtg gacgtgagcc acgaagacc tgaggtcaag	840
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cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg	960
aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa	1020
accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gccccatcc	1080
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc	1140
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccacg	1200
cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag	1260
agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac	1320
cactacacgc agaagagcct ctccctgtct ccgggtaaa	1359

<210> 2164

4358741_1

<211> 1359
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2164
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 tcctgcaagg cttctggata caccttcacc ggctactata tacactgggt gcgtcaggcc 120
 cctggacaag ggcttgagtg gatgggggtg ataagcccta accaagggtga aacaaactat 180
 gcacagaagt ttcaggacag ggtcaccatg accagggaca cgtccatcag cacagcctat 240
 atggagctga gcagcctgag atctgacgac acggccgtgt attactgtgc gagagaggcc 300
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 acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta 540
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 acccagacct acatctgcaa cgtgaatcac aagcccagca acaccaagggt ggacaagaaa 660
 gttgagccca aatcttgtga caaaactcac acatgccac cgtgcccagc acctgaactc 720
 ctgggggggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc 780
 cggacccctg aggtcacatg cgtggtggtg gacgtgagcc acgaagacc ttaggtcaag 840
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 cagtacggca gcacgtaccg ttgtgtcagc gtcctcaccg tcctgcacca ggactggctg 960
 aatggcaagg agtacaagtg caaggtctcc aacaaagccc tcccagcccc catcgagaaa 1020
 accatctcca aagccaaagg gcagccccga gaaccacagg tgtacaccct gcccccatcc 1080
 cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctatccc 1140
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 cctcccgtgc tggactccga cggctccttc ttctctata gcaagctcac cgtggacaag 1260
 agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac 1320
 cactacacgc agaagagcct ctccctgtct ccgggtaaa 1359

<210> 2165
 <211> 1374
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2165
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4358741_1

tcctgcaagg	cttccggata	caccttcacc	ggctactata	tgcatagggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggatgg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
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ttccccgaac	cggtgacggg	gtcgtggaac	tcaggcgccc	tgaccagcgg	cgtgcacacc	540
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tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagttag	gcccaaattc	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
ccagcacctg	aactcctggg	gggaccgtca	gtcttcctct	tcccccaaaa	acccaaggac	780
accctcatga	tctcccgac	ccctgaggtc	acatgcgtgg	tggtggacgt	gagccacgaa	840
gaccctgagg	tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	900
aagccgtgtg	aggagcagta	cggcagcacg	taccgttgtg	tcagcgtcct	caccgtcctg	960
caccaggact	ggctgaatgg	caaggagtac	aagtgcagg	tctccaacaa	agccctccca	1020
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accctgcccc	catcccggga	ggagatgacc	aagaaccagg	tcagcctgac	ctgcctggtc	1140
aaaggcttct	atcccagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccggagAAC	1200
aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2166

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2166

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cctggacaag	ggcttgagtg	gatgggatgg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcgggtctt	ccccctggca	420

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ccctcctcca	agagcacctc	tgggggcaca	gcggccctgg	gctgcctggt	caaggactac	480
ttccccgaac	cggtgacggt	gtcgtggaac	tcaggcgccc	tgaccagcgg	cgtgcacacc	540
ttccccggtg	tcctacagtc	ctcaggactc	tactccctca	gcagcgtggt	gaccgtgccc	600
tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagttga	gcccaaattct	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
ccagcacctg	aactcctggg	gggaccgtca	gtcttcctct	tcccccaaaa	acccaaggac	780
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gaccctgagg	tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	900
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caccaggact	ggctgaatgg	caaggagtac	aagtgcaagg	tctccaacaa	agccctccca	1020
gcccccatcg	agaaaacat	ctccaaagcc	aaagggcagc	cccgagaacc	acaggtgtac	1080
accctgcccc	catcccgga	ggagatgacc	aagaaccagg	tcagcctgac	ctgcctggtc	1140
aaaggcttct	atcccagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccggagAAC	1200
aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2167

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2167

cagatgcagg	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttccgata	caccttcacc	ggctactata	tgattgggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcggctct	ccccctggca	420
ccctcctcca	agagcacctc	tgggggcaca	gcggccctgg	gctgcctggt	caaggactac	480
ttccccgaac	cggtgacggt	gtcgtggaac	tcaggcgccc	tgaccagcgg	cgtgcacacc	540
ttccccggtg	tcctacagtc	ctcaggactc	tactccctca	gcagcgtggt	gaccgtgccc	600
tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagttga	gcccaaattct	tgtgacaaaa	ctcacacatg	cccaccgtgc	720

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ccagcacctg aactcctggg gggaccgtca gtcttcctct tcccccaaa acccaaggac	780
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gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca	900
aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg	960
caccaggact ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctccca	1020
gccccatcg agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac	1080
accctgcccc catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc	1140
aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac	1200
aactacaaga ccacgcctcc cgtgctggac tccgacggct ctttcttctt ctatagcaag	1260
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat	1320
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa	1374

<210> 2168

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2168

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cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac	240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg	300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa	360
gggaccacgg tcaccgtctc ctacgcctcc accaagggcc catcggtctt ccccctggca	420
ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggc caaggactac	480
ttccccgaac cggtgacggg gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc	540
ttcccggtg tcctacagtc ctcaggactc tactccctca gcagcgtggg gaccgtgccc	600
tccagcagct tgggcaccca gacctacatc tgcaacgtga atcacaagcc cagcaacacc	660
aaggtggaca agaaagttag gcccaaattc tgtgacaaaa ctcacacatg cccaccgtgc	720
ccagcacctg aactcctggg gggaccgtca gtcttcctct tcccccaaa acccaaggac	780
accctcatga tctcccggac ccctgaggtc acatgcgtgg tgggtggacgt gagccacgaa	840
gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca	900
aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg	960
caccaggact ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctccca	1020
gccccatcg agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac	1080

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accctgcccc	catcccggga	ggagatgacc	aagaaccagg	tcagcctgac	ctgcctggtc	1140
aaaggcttct	atcccagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccggagaac	1200
aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2169

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2169

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tcctgcaagg	cttccggata	caccttcacc	ggctactata	tgcattgggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggatgg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcggtctt	ccccctggca	420
ccctcctcca	agagcacctc	tgggggcaca	gcggccctgg	gctgcctggg	caaggactac	480
ttccccgaac	cggtgacggt	gtcgtggaac	tcaggcgccc	tgaccagcgg	cgtgcacacc	540
ttccccggctg	tcctacagtc	ctcaggactc	tactccctca	gcagcgtggg	gaccgtgccc	600
tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagttag	gccccaatct	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
ccagcacctg	aactcctggg	gggaccgtca	gtcttcctct	tccccccaaa	acccaaggac	780
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accctgcccc	catcccggga	ggagatgacc	aagaaccagg	tcagcctgac	ctgcctggtc	1140
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aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2170
 <211> 1374
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2170
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 tcctgcaagg cttccgata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggatgg atcaacccta acagtgggtg cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctcagcctcc accaagggcc catcggctctt cccctggca 420
 ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggg caaggactac 480
 ttccccgaac cggtgacggt gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc 540
 ttcccggtg tcctacagtc ctcaggactc tactccctca gcagcgtggg gaccgtgccc 600
 tccagcagct tgggcacca gacctacatc tgcaacgtga atcacaagcc cagcaacacc 660
 aaggtggaca agaaagtga gcccaaactc tgtgacaaaa ctcacacatg cccaccgtgc 720
 ccagcacctg aactcctggg gggaccgtca gtcttctctt tcccccaaa acccaaggac 780
 accctcatga tctcccgac ccctgaggtc acatgcgtgg tgggtggacgt gagccacgaa 840
 gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca 900
 aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg 960
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 gccccatcg agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac 1080
 accctgcccc catcccgga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc 1140
 aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac 1200
 aactacaaga ccacgcctc cgtgctggac tccgacggct ccttcttctt ctatagcaag 1260
 ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat 1320
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<210> 2171
 <211> 1374
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2171

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cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcacatg	accagggaca	cgtccatcag	tacagcctac	240
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gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
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tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagtga	gcccaaattc	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
ccagcacctg	aactcctggg	gggaccgtca	gtcttcctct	tcccccaaaa	accaaggac	780
accctcatga	tctcccggac	ccctgaggtc	acatgcgtgg	tggtggacgt	gagccacgaa	840
gacctgagg	tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	900
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caccaggact	ggctgaatgg	caaggagtac	aagtgcgaag	tctccaacaa	agccctccca	1020
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accctgcccc	catcccggga	ggagatgacc	aagaaccagg	tcagcctgac	ctgcctggtc	1140
aaaggcttct	atcccagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccggagaac	1200
aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2172

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2172

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cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcacatg	accagggaca	cgtccatcag	tacagcctac	240
atggagctga	gcaggctgag	gtctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360

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gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcgggtctt	ccccctggca	420
ccctcctcca	agagcacctc	tgggggcaca	gcggccctgg	gctgcctggg	caaggactac	480
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tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagttag	gcccaaattct	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
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caccaggact	ggctgaatgg	caaggagtac	aagtgcgaagg	tctccaacaa	agccctccca	1020
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aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2173

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2173

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tcctgcaagg	cttccgata	caccttcacc	ggctactata	tgcatgggg	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggatg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcacatg	accagggaca	cgtccatcag	tacagcctac	240
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gattacgttt	gggggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcgggtctt	ccccctggca	420
ccctcctcca	agagcacctc	tgggggcaca	gcggccctgg	gctgcctggg	caaggactac	480
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tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660

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accctcatga tctcccgga ccctgaggtc acatgcgtgg tggtaggacgt gagccacgaa	840
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aaaggcttct atcccagca catcgccgtg gaggggaga gcaatgggca gccggagaac	1200
aactacaaga ccacgcctcc cgtgctggac tccgacggct cttcttcct ctatagcaag	1260
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat	1320
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa	1374

<210> 2174

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2174

cagatgcagg tggtagcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttccgata caccttcacc ggctactata tgcatgggt gcgacaggcc	120
cctggacaag ggcttgagt gatgggatg atcaacccta acagtgggtg cacaactat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac	240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg	300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa	360
gggaccacgg tcaccgtctc ctgacctcc accaagggcc catcggctct cccctggca	420
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ttccccgaac cggtagcgtg gtcgtggaac tcaggcgccc tgaccagcg cgtgcacacc	540
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tccagcagct tgggcacca gacctacatc tgcaacgtga atcacaagcc cagcaacacc	660
aaggtggaca agaaagtga gcccaaact tgtgacaaaa ctcacacatg cccaccgtgc	720
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accctcatga tctcccgga ccctgaggtc acatgcgtgg tggtaggacgt gagccacgaa	840
gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca	900
aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg	960
caccaggact ggctgaatgg caaggagtac aagtgcagg tctccaacaa agccctccca	1020

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gcccccatcg agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac	1080
accctgcccc catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc	1140
aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac	1200
aactacaaga ccacgcctcc cgtgctggac tccgacggct ctttcttcct ctatagcaag	1260
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat	1320
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa	1374

<210> 2175

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2175

cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc	120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac	240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg	300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa	360
gggaccacgg tcaccgtctc ctcagcctcc accaagggcc catcggctct cccctggca	420
ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggc caaggactac	480
ttccccgaac cggtgacggc gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc	540
ttcccggctg tcctacagtc ctcaggactc tactccctca gcagcgtggc gaccgtgccc	600
tccagcagct tgggcaccca gacctacatc tgcaacgtga atcacaagcc cagcaacacc	660
aaggtggaca agaaagtga gcccaaactt tgtgacaaaa ctcacacatg cccaccgtgc	720
ccagcacctg aactcctggg gggaccgtca gtcttctct tcccccaaa acccaaggac	780
accctcatga tctcccggac ccctgaggtc acatgcgtgg tggcggacgt gagccacgaa	840
gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca	900
aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg	960
caccaggact ggctgaatgg caaggagtac aagtgcgaagg tctccaacaa agccctccca	1020
gcccccatcg agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac	1080
accctgcccc catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc	1140
aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac	1200
aactacaaga ccacgcctcc cgtgctggac tccgacggct ctttcttcct ctatagcaag	1260
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat	1320

4358741_1

gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa 1374

<210> 2176
 <211> 1374
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2176
 cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
 atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
 gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
 gggaccacgg tcaccgtctc ctcacctcc accaagggcc catcggctct ccccttgga 420
 ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggt caaggactac 480
 ttccccgaac cggtgacggt gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc 540
 ttcccggctg tcctacagtc ctcaggactc tactccctca gcagcgtggt gaccgtgccc 600
 tccagcagct tgggcaccca gacctacatc tgcaacgtga atcacaagcc cagcaacacc 660
 aaggtggaca agaaagtga gcccaaactt tgtgacaaaa ctcacacatg cccaccgtgc 720
 ccagcacctg aactcctggg gggaccgtca gtcttcctct tcccccaaa acccaaggac 780
 accctcatga tctcccgac ccctgaggtc acatgcgtgg tgggtggacgt gagccacgaa 840
 gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca 900
 aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg 960
 caccaggact ggctgaatgg caaggagtac aagtgaagg tctccaacaa agccctccca 1020
 gcccccatcg agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac 1080
 accctgcccc catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc 1140
 aaaggcttct atcccagca catcgccgtg gagtgggaga gcaatgggca gccggagaac 1200
 aactacaaga ccacgcctcc cgtgctggac tccgacggct ctttcttct ctatagcaag 1260
 ctaccctggg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat 1320
 gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa 1374

<210> 2177
 <211> 1374
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

4358741_1

<400> 2177
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcagcctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300
gattacgttt tcgggactta tcggcctcac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctgagcctcc accaagggcc catcgggtctt ccccttgga 420
ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggg caaggactac 480
ttccccgaac cggtgacggt gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc 540
ttcccggctg tcctacagtc ctgaggactc tactccctca gcagcgtggg gaccgtgccc 600
tccagcagct tgggcacca gacctacatc tgcaacgtga atcacaagcc cagcaacacc 660
aaggtggaca agaaagtga gcccaaactc tgtgacaaaa ctacacatg cccaccgtgc 720
ccagcacctg aactcctggg gggaccgtca gtcttctctt tcccccaaa acccaaggac 780
accctcatga tctcccggac ccctgaggtc acatgcgtgg tgggtggacgt gagccacgaa 840
gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca 900
aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg 960
caccaggact ggctgaatgg caaggagtac aagtgaagg tctccaacaa agccctccca 1020
gcccccatcg agaaaacat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac 1080
accctgcccc catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc 1140
aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagAAC 1200
aactacaaga ccacgcctcc cgtgctggac tccgacggct ccttcttctt ctatagcaag 1260
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat 1320
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa 1374

<210> 2178
<211> 1374
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2178
cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttccggata caccttcacc ggctactata tgcattgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac 240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg 300

4358741_1

gattacgttt	tcgggactta	tcggcctcac	tactactacg	gtatggacgt	ctggggccaa	360
gggaccacgg	tcaccgtctc	ctcagcctcc	accaagggcc	catcgggtctt	ccccctggca	420
ccctcctcca	agagcacctc	tggggggcaca	gcggccctgg	gctgcctggt	caaggactac	480
ttccccgaac	cggtgacggt	gtcgtggaac	tcaggcgccc	tgaccagcgg	cgtgcacacc	540
ttccccggctg	tcctacagtc	ctcaggactc	tactccctca	gcagcgtggt	gaccgtgccc	600
tccagcagct	tgggcaccca	gacctacatc	tgcaacgtga	atcacaagcc	cagcaacacc	660
aaggtggaca	agaaagttag	gcccaaattct	tgtgacaaaa	ctcacacatg	cccaccgtgc	720
ccagcacctg	aactcctggg	gggaccgtca	gtcttcctct	tccccccaaa	acccaaggac	780
accctcatga	tctcccggac	ccctgaggtc	acatgcgtgg	tgggtggacgt	gagccacgaa	840
gaccctgagg	tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	900
aagccgtgtg	aggagcagta	cggcagcacg	taccgttgtg	tcagcgtcct	caccgtcctg	960
caccaggact	ggctgaatgg	caaggagtac	aagtgcgaagg	tctccaacaa	agccctccca	1020
gcccccatcg	agaaaaccat	ctccaaagcc	aaagggcagc	cccgagaacc	acaggtgtac	1080
accctgcccc	catccccgga	ggagatgacc	aagaaccagg	tcagcctgac	ctgcctggtc	1140
aaaggcttct	atcccagcga	catcgccgtg	gagtgggaga	gcaatgggca	gccggagAAC	1200
aactacaaga	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttcct	ctatagcaag	1260
ctcaccgtgg	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	1320
gaggctctgc	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaa	1374

<210> 2179

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2179

caggtgcagc	tgggtggagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cgtctggatt	cactttcagt	aactttggca	tgcactgggt	ccgccaggcc	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	tgaaaactat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	cacgctgtat	240
ctgcaaatga	acagcctgag	agccgaggac	acggctgtgt	attactgtgc	gagagatagg	300
acgatctttg	gagtgggtctt	gggggactac	tggggccagg	gaaccctggt	caccgtctcc	360
tcagcctcca	ccaagggccc	atcgggtctt	cccctggcac	cctcctccaa	gagcacctct	420
gggggcacag	cggccctggg	ctgcctggtc	aaggactact	tccccgaacc	ggtgacgggtg	480
tcgtggaact	caggcgccct	gaccagcggc	gtgcacacct	tcccggctgt	cctacagtcc	540
tcaggactct	actccctcag	cagcgtgggtg	accgtgccct	ccagcagctt	gggcacccag	600

4358741_1

acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccgacc	780
cctgaggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
tggtagctgg acggcgtgga ggtgcataat gccaaagaaa agccgtgtga ggagcagtac	900
ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2180

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2180

caggtgcagc tggtaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt tactttggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taaatactat	180
gcagacgccg tgaagggccg cttcaccatc tccagagaca attccaagaa cagcgtgtat	240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagatagg	300
acgatttttg gagtgtcttt gggggactac tggggccagg gaaccctggt caccgtctcc	360
tcagcctcca ccaagggccc atcggctctc cccctggcac cctcctcaa gagcacctct	420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag	600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	660
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
ggaccgtcag tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccgacc	780
cctgaggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
tggtagctgg acggcgtgga ggtgcataat gccaaagaaa agccgtgtga ggagcagtac	900
ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960

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aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgaggag	1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2181

<211> 1374

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2181

cagatgcagg tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg ctcccgata caccttcacc ggctactata tgcattgggt gcgacaggcc	120
cctggacaag ggcttgagt gatgggatgg atcaacccta acagtgggtg cacaaactat	180
gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag tacagcctac	240
atggagctga gcaggctgag gtctgacgac acggccgtgt attactgtgc gagagggggg	300
gattacgttt gggggactta tcggcctcac tactactacg gtatggacgt ctggggccaa	360
gggaccacgg tcaccgtctc ctcagcctcc accaagggcc catcggctct cccctggca	420
ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggt caaggactac	480
ttccccgaac cggtgacggt gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc	540
ttcccggtg tcctacagtc ctcaggactc tactccctca gcagcgtggt gaccgtgccc	600
tccagcagct tgggcaccca gacctacatc tgcaacgtga atcacaagcc cagcaacacc	660
aaggtggaca agaaagtga gcccaaactt tgtgacaaaa ctcacacatg cccaccgtgc	720
ccagcacctg aactcctggg gggaccgtca gtcttcctct tcccccaaa acccaaggac	780
accctcatga tctcccgac ccctgaggtc acatgcgtgg tgggtggacgt gagccacgaa	840
gaccctgagg tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca	900
aagccgtgtg aggagcagta cggcagcacg taccgttgtg tcagcgtcct caccgtcctg	960
caccaggact ggctgaatgg caaggagtac aagtgaagg tctccaacaa agccctccca	1020
gccccatcg agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac	1080
accctgcccc catcccgga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc	1140
aaaggcttct atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac	1200
aactacaaga ccacgcctcc cgtgctggac tccgacggct cttcttcct ctatagcaag	1260

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ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat 1320
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa 1374

<210> 2182
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2182
caggtgcagt tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtacag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taagttccat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
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tcagcctcca ccaagggccc atcggtcttc cccctggcac cctcctccaa gagcacctct 420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg 480
tcgtggaact caggcgcctt gaccagcggc gtgcacacct tcccggctgt cctacagtcc 540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag 600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag 660
cccaaattct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg 720
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cctgagggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac 840
tggtacgtgg acggcgtgga ggtgcataat gccaaagaaa agccgtgtga ggagcagtag 900
ggcagcacgt accgtttgtg cagcgtcctc accgtcctgc accaggactg gctgaatggc 960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc 1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag 1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac 1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc 1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg 1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac 1320
acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 2183
<211> 1377
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2183

caaatgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggctc	60
tcctgcaagg	cttctggata	caccttcacc	agttatgata	tcaactgggt	gcgacaggcc	120
actggacaag	ggcttgagtg	gatgggatgg	atgaacccta	acagtggtaa	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctcaggac	acggccgtgt	attactgtgc	gagaggggggt	300
gattacgttt	gggggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctcagcc	tccaccaagg	gcccacggt	cttccccctg	420
gcaccctcct	ccaagagcac	ctctgggggc	acagcggccc	tgggctgcct	ggtcaaggac	480
tacttccccg	aaccggtgac	ggtgtcgtgg	aactcaggcg	ccctgaccag	cggcgtgcac	540
accttccccg	ctgtcctaca	gtcctcagga	ctctactccc	tcagcagcgt	ggtgaccgtg	600
ccctccagca	gcttgggcac	ccagacctac	atctgcaacg	tgaatcaca	gcccagcaac	660
accaaggtgg	acaagaaagt	tgagcccaa	tcttgtgaca	aaactcacac	atgcccaccg	720
tgcccagcac	ctgaactcct	ggggggaccg	tcagtcttcc	tcttcccccc	aaaacccaag	780
gacaccctca	tgatctcccc	gaccctgag	gtcacatgcg	tgggtggtgga	cgtgagccac	840
gaagaccctg	aggtcaagtt	caactggtac	gtggacggcg	tggaggtgca	taatgccaa	900
acaaagccgt	gtgaggagca	gtacggcagc	acgtaccgtt	gtgtcagcgt	cctcacgcgtc	960
ctgcaccagg	actggctgaa	tggcaaggag	tacaagtgca	aggtctccaa	caaagccctc	1020
ccagcccca	tcgagaaaac	catctccaaa	gccaaagggc	agccccgaga	accacagggtg	1080
tacaccctgc	ccccatcccc	ggaggagatg	accaagaacc	aggtcagcct	gacctgcctg	1140
gtcaaaggct	tctatcccag	cgacatcgcc	gtggagtggg	agagcaatgg	gcagccggag	1200
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aagctcaccg	tggacaagag	caggtggcag	caggggaacg	tcttctcatg	ctccgtgatg	1320
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<210> 2184

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2184

caggtgcagt	tggtggagtc	tgggggagggc	gtggtccagc	ctgggaggctc	cctgagactc	60
tcctgtgcag	cgtctggatt	caccttcagt	agctatggca	tacactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcagtt	atatggtatg	atgcaagtaa	taagttccat	180
gcagacgccg	tgaagggccg	attcaccatc	tccagagaca	attccaagaa	cacgctgtat	240

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tcagcctcca ccaagggccc atcggctcttc cccctggcac cctcctccaa gagcacctct	420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggtgtg cctacagtcc	540
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tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2185

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2185

caggtgcagt tggaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtacag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cagcgtgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
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gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggtgtg cctacagtcc	540

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cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
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gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2186

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2186

caggtgcagt tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cagcgtgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacaaaggt caccgtctct	360
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcaccag	600
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cctgaggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctcct gtctccgggt aaa	1353

<210> 2187

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2187

caggtgcagt tggaggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cagcgtgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggtgt cctacagtcc	540
tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcacccag	600
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cccaaattct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc	780
cctgagggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
tgggtacgtg acggcgtgga ggtgcataat gccaaagaaa agccgtgtga ggagcagtag	900
ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
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tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
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tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2188

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2188

caggtgcagt tgggtggagtc tgggggaggc gtgggtccagc ctgggagggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
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tccaaagcca aagggcagcc ccgagaacca cagggtgtaca ccctgcccc atcccgggag	1080
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atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2189

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2189

caggtgcagt tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taagttccat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	240
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tggcagcagg ggaacgtctt ctcattgctc gtgatgcatg aggtcttgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2190

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2190

caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc	120
actggacaag ggcttgagtg gatgggatgg atgaacccta acagtgggtg cacaggctat	180

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catgaggctc tgcacaacca ctacacgag aagagcctct ccctgtctcc gggtaaa	1377

<210> 2191

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2191

caaatgcagc tggcgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc	60
tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc	120
actggacaag ggcttgagt gatgggatg atgaacccta acagtggtaa cacaggctat	180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac	240
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caagggacca cggtcacctg ctctcagcc tccaccaagg gcccatcggt cttccccctg	420
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<210> 2192

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2192

caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
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actggacaag ggcttgagt gatgggatg atgaacccta acagtgggtg cacaggctat	180
gcacagaagt tccagggcag agtcacatg accagggaca cctccataag cacagcctac	240
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<210> 2193

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2193

caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc	60
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cctggacaag ggcttgagtg gatgggatgg atgaacccta acagtgggtg cacaggctat	180
gcacagaagt tccagggcag agtcacatg accagggaca cctccataag cacagcctac	240
atggagctga gcagcctgag atctgacgac acggccgtgt attactgtgc gagagggggg	300
gattacgttt gggggagtta tcgtccctac tactactact acggtatgga cgtctggggc	360
caagggacca cggtcaccgt ctctcagcc tccaccaagg gcccatcggt cttccccctg	420
gcaccctcct ccaagagcac ctctgggggc acagcggccc tgggctgcct ggtcaaggac	480
tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ccctgaccag cggcgtgcac	540
accttccccg ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg	600
ccctccagca gcttgggcac ccagacctac atctgcaacg tgaatcaca gccagcaac	660
accaaggtgg acaagaaagt tgagcccaa tcttgtgaca aaactcacac atgcccaccg	720
tgcccagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc aaaaccaag	780
gacaccctca tgatctcccg gaccctgag gtcacatgcg tgggtggtgga cgtgagccac	840
gaagaccctg aggtcaagtt caactggtac gtggacggcg tggaggtgca taatgccaa	900
acaaagccgt gtgaggagca gtacggcagc acgtaccgtt gtgtcagcgt cctcaccgtc	960
ctgcaccagg actggctgaa tggcaaggag tacaagtgca aggtctccaa caaagccctc	1020
ccagcccca tcgagaaaac catctccaaa gccaaagggc agcccgaga accacaggtg	1080
tacaccctgc ccccatcccg ggaggagatg accaagaacc aggtcagcct gacctgcctg	1140

4358741_1

gtcaaaggct tctatccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag	1200
aacaactaca agaccacgcc tcccgtgctg gactccgacg gctccttctt cctctatagc	1260
aagctcaccg tggacaagag caggtggcag caggggaacg tcttctcatg ctccgtgatg	1320
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<210> 2194

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2194

caaatgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc	60
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actggacaag ggcttgagtg gatgggatgg atgaacccta acagtgggtg cacaggctat	180
gcacagaagt tccagggcag agtcaccatg accagggaca cctccataag cacagcctac	240
atggagctga gcagcctgag atctcaggac acggccgtgt attactgtgc gagaggggggt	300
gattacgttt gggggagtta tcgtccctac tactactact acggtatgga cgtctggggc	360
caagggacca cggtcaccgt ctctcagcc tccaccaagg gcccatcggt cttccccctg	420
gcaccctcct ccaagagcac ctctgggggc acagcggccc tgggctgcct ggtcaaggac	480
tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ccctgaccag cggcgtgcac	540
accttccccg ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg	600
ccctccagca gcttgggcac ccagacctac atctgcaacg tgaatcaca gccagcaac	660
accaagggtg acaagaaagt tgagcccaa tcttgtgaca aaactcacac atgcccaccg	720
tgcccagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc aaaaccaag	780
gacacctca tgatctccc gaccctgag gtcacatgcg tgggtggtgga cgtgagccac	840
gaagaccctg aggtcaagtt caactggtac gtggacggcg tggaggtgca taatgccaa	900
acaaagccgt gtgaggagca gtacggcagc acgtaccgtt gtgtcagcgt cctcaccgtc	960
ctgcaccagg actggctgaa tggcaaggag tacaagtgca aggtctccaa caaagccctc	1020
ccagccccc tgcagaaaac catctccaaa gccaaagggc agccccgaga accacagggtg	1080
tacaccctgc ccccatcccc ggaggagatg accaagaacc aggtcagcct gacctgcctg	1140
gtcaaaggct tctatccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag	1200
aacaactaca agaccacgcc tcccgtgctg gactccgacg gctccttctt cctctatagc	1260
aagctcaccg tggacaagag caggtggcag caggggaacg tcttctcatg ctccgtgatg	1320
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<210> 2195

<211> 1377

4358741_1

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2195

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cctggacaag	ggcttgagtg	gatgggatgg	atgaacccta	acagtggtaa	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	gggggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctcagcc	tccaccaagg	gcccacggt	cttccccctg	420
gcaccctcct	ccaagagcac	ctctgggggc	acagcggccc	tgggctgcct	ggtcaaggac	480
tacttccccg	aaccggtgac	ggtgtcgtgg	aactcaggcg	ccctgaccag	cggcgtgcac	540
accttccccg	ctgtcctaca	gtcctcagga	ctctactccc	tcagcagcgt	ggtgaccgtg	600
ccctccagca	gcttgggcac	ccagacctac	atctgcaacg	tgaatcacia	gcccagcaac	660
accaaggtgg	acaagaaagt	tgagcccaaa	tcttgtgaca	aaactcacac	atgcccaccg	720
tgcccagcac	ctgaactcct	gggggggaccg	tcagtcttcc	tcttcccccc	aaaacccaag	780
gacaccctca	tgatctcccc	gaccctgag	gtcacatgcg	tggtggtgga	cgtgagccac	840
gaagaccctg	aggtcaagtt	caactggtac	gtggacggcg	tggaggtgca	taatgccaag	900
acaaagccgt	gtgaggagca	gtacggcagc	acgtaccgtt	gtgtcagcgt	cctcaccgtc	960
ctgcaccagg	actggctgaa	tggcaaggag	tacaagtgca	aggtctccaa	caaagccctc	1020
ccagcccca	tcgagaaaac	catctccaaa	gccaaagggc	agccccgaga	accacagggtg	1080
tacaccctgc	ccccatcccc	ggaggagatg	accaagaacc	aggtcagcct	gacctgcctg	1140
gtcaaaggct	tctatcccag	cgacatcgcc	gtggagtggg	agagcaatgg	gcagccggag	1200
aacaactaca	agaccacgcc	tcccgtgctg	gactccgacg	gctccttctt	cctctatagc	1260
aagctcaccg	tggacaagag	caggtggcag	caggggaacg	tcttctcatg	ctccgtgatg	1320
catgaggctc	tgcacaacca	ctacacgcag	aagagcctct	ccctgtctcc	gggtaaa	1377

<210> 2196

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2196

caaatgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	agttatgata	tcaactgggt	gcgacaggcc	120

4358741_1

actggacaag	ggcttgagtg	gatgggatgg	atgaacccta	acagtgggtg	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctcaggac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	tcgggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctcagcc	tccaccaagg	gcccacggt	cttccccctg	420
gcaccctcct	ccaagagcac	ctctgggggc	acagcggccc	tgggctgcct	ggtcaaggac	480
tacttccccg	aaccggtgac	ggtgtcgtgg	aactcaggcg	ccctgaccag	cggcgtgcac	540
accttccccg	ctgtcctaca	gtcctcagga	ctctactccc	tcagcagcgt	ggtgaccgtg	600
ccctccagca	gcttgggcac	ccagacctac	atctgcaacg	tgaatcacia	gcccagcaac	660
accaaggtgg	acaagaaagt	tgagcccaaa	tcttgtgaca	aaactcacac	atgcccaccg	720
tgcccagcac	ctgaactcct	ggggggaccg	tcagtcttcc	tcttcccccc	aaaacccaag	780
gacaccctca	tgatctcccc	gaccctgag	gtcacatgcg	tgggtggtgga	cgtgagccac	840
gaagaccctg	aggtaagtt	caactggtac	gtggacggcg	tggaggtgca	taatgccaag	900
acaaagccgt	gtgaggagca	gtacggcagc	acgtaccgtt	gtgtcagcgt	cctcaccgtc	960
ctgcaccagg	actggctgaa	tggcaaggag	tacaagtgca	aggctctcaa	caaagccctc	1020
ccagcccca	tcgagaaaac	catctccaaa	gccaaagggc	agccccgaga	accacaggtg	1080
tacaccctgc	ccccatcccc	ggaggagatg	accaagaacc	aggtcagcct	gacctgcctg	1140
gtcaaaggct	tctatcccag	cgacatcgcc	gtggagtggg	agagcaatgg	gcagccggag	1200
aacaactaca	agaccacgcc	tcccgtgctg	gactccgacg	gctccttctt	cctctatagc	1260
aagctcaccg	tggacaagag	caggtggcag	caggggaacg	tcttctcatg	ctccgtgatg	1320
catgaggctc	tgcacaacca	ctacacgcag	aagagcctct	ccctgtctcc	gggtaaa	1377

<210> 2197

<211> 1377

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2197

caaattgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	agttatgata	tcaactgggt	gcgacaggcc	120
cctggacaag	ggcttgagtg	gatgggatgg	atgaacccta	acagtgggtg	cacaggctat	180
gcacagaagt	tccagggcag	agtcaccatg	accagggaca	cctccataag	cacagcctac	240
atggagctga	gcagcctgag	atctgacgac	acggccgtgt	attactgtgc	gagagggggg	300
gattacgttt	tcgggagtta	tcgtccctac	tactactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctcagcc	tccaccaagg	gcccacggt	cttccccctg	420

4358741_1

gcaccctcct ccaagagcac ctctgggggc acagcggccc tgggctgcct ggtcaaggac	480
tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ccctgaccag cggcgtgcac	540
accttccccg ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg	600
ccctccagca gcttgggcac ccagacctac atctgcaacg tgaatcaca gcccagcaac	660
accaaggtgg acaagaaagt tgagcccaaa tcttgtgaca aaactcacac atgcccaccg	720
tgcccagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc aaaacccaag	780
gacaccctca tgatctcccc gaccctgag gtcacatgcg tgggtggtgga cgtgagccac	840
gaagaccctg aggtcaagtt caactggtac gtggacggcg tggaggtgca taatgccaa	900
acaaagccgt gtgaggagca gtacggcagc acgtaccgtt gtgtcagcgt cctcaccgtc	960
ctgcaccagg actggctgaa tggcaaggag tacaagtgca aggtctccaa caaagccctc	1020
ccagccccca tcgagaaaac catctccaaa gccaaagggc agccccgaga accacagggtg	1080
tacaccctgc ccccatcccc ggaggagatg accaagaacc aggtcagcct gacctgcctg	1140
gtcaaaggct tctatcccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag	1200
aacaactaca agaccacgcc tcccgtgctg gactccgacg gctccttctt cctctatagc	1260
aagctcaccg tggacaagag caggtggcag caggggaacg tcttctcatg ctccgtgatg	1320
catgaggctc tgcacaacca ctacacgag aagagcctct ccctgtctcc gggtaaa	1377

<210> 2198

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 2198

caggtgcagt tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc	60
tcctgtgcag cgtctggatt caccttcagt agctatggca tacactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atgcaagtaa taagttccat	180
gcagacgccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac tcggctatgt acttctgtgc gagaggaaaa	300
gtggctggta tgcctgaagc ttttgaaatc tggggccaag ggacattggt caccgtctct	360
tcagcctcca ccaagggccc atcgggtcttc cccctggcac cctcctccaa gagcacctct	420
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tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag	600
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cccaaactct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	720
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc	780

4358741_1

cctgaggtca catgctggt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
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ggcagcacgt accgttgtgt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
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tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 2199

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2199

tctggaagta gctccaacat cggaagtaat actgtaaac 39

<210> 2200

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2200

cgggcaagtc aggacattag agattattta ggc 33

<210> 2201

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2201

cgggcaagtc aggacattag agattattta ggc 33

<210> 2202

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

oligonucleotide

<400> 2202
caggcgagtc aggacattag caactattta aat 33

<210> 2203
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2203
aagtccagcc agagtgtttt atccagctcc aacaataaga actacatagc t 51

<210> 2204
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2204
aagtccagcc agagtgtttt atccagctcc aacaataaga actacatagc t 51

<210> 2205
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2205
aagtccagcc agagtgtttt atccagctcc aacaataaga actacttagc t 51

<210> 2206
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2206
aagtccagcc agagtgtttt atccagctcc aacaataaga actacttagc t 51

<210> 2207
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2207

4358741_1
agggccagtc agagtattag ttacagttac ttagcc 36

<210> 2208
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2208
agggccagtc agagtgttag cagcaactta gcc 33

<210> 2209
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2209
cgggcaagtc agggcattag aaatgagtta ggc 33

<210> 2210
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2210
caggcgagtc aggacattac caactattta aat 33

<210> 2211
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2211
cgggcgagtc agggctttat catctggta gcc 33

<210> 2212
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2212
cgggcgagtc agggctttat catctggta gcc 33

<210> 2213
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2213
 cgggcaagtc agggcattag aaatgagtta ggc 33

 <210> 2214
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2214
 cgggcaagtc agggcattag aaatgagtta ggc 33

 <210> 2215
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2215
 cgggcaagtc agggcattag aaatgagtta ggc 33

 <210> 2216
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2216
 cgggcaagtc agggcattag aaatgagtta ggc 33

 <210> 2217
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2217
 cgggcaagtc agggcattag aaatgagtta ggc 33

 <210> 2218
 <211> 33
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2218

cgggcaagtc agggcattag aaatgagtta ggc

33

<210> 2219

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2219

cgggcaagtc aggacattag agattattta ggc

33

<210> 2220

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2220

cgggcaagtc aggacattag agattattta ggc

33

<210> 2221

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2221

cgggcaagtc aggacattag agattattta ggc

33

<210> 2222

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2222

cgggcaagtc aggacattag agattattta ggc

33

<210> 2223

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2223
cgggcaagtc aggacattag agattattta ggc

33

<210> 2224
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2224
cgggcaagtc aggacattag agattattta ggc

33

<210> 2225
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2225
cgggcaagtc aggacattag agattattta ggc

33

<210> 2226
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2226
cgggcaagtc aggaccttag aaattattta ggc

33

<210> 2227
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2227
cgggcaagtc aggaccttag aaattattta ggc

33

<210> 2228
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2228
cgggcaagtc aggaccttag aaattattta ggc 33

<210> 2229
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2229
cgggcaagtc aggaccttag aaattattta ggc 33

<210> 2230
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2230
cgggcaagtc aggaccttag aaattattta ggc 33

<210> 2231
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2231
cgggcaagtc aggaccttag aaattattta ggc 33

<210> 2232
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2232
cgggcaagtc aggaccttag aaattattta ggc 33

<210> 2233
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2233
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<210> 2249
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oligonucleotide

<400> 2265
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<210> 2266
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<210> 2267
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<210> 2268
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<400> 2268
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<210> 2269
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oligonucleotide

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<210> 2270
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<220>
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oligonucleotide

<400> 2270
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<210> 2271
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oligonucleotide

<400> 2271
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<210> 2272
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<400> 2272
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<210> 2273
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<210> 2275
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<210> 2276
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<400> 2276
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<210> 2277
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<210> 2278
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<210> 2279
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<400> 2279
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<210> 2280
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<220>
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<400> 2280
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<210> 2281
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 <400> 2281
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 <210> 2282
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 <400> 2282
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 <210> 2283
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<400> 2286

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<212> DNA

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<400> 2288

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<210> 2289

<211> 51

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2289

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<210> 2290

<211> 51

<212> DNA

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<400> 2290

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<210> 2291

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: Synthetic
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<400> 2291
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<210> 2292
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<220>
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oligonucleotide

<400> 2292
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<210> 2293
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<220>
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oligonucleotide

<400> 2293
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<210> 2294
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<220>
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oligonucleotide

<400> 2294
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<210> 2295
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<220>
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<210> 2296
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<210> 2297
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oligonucleotide

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<210> 2298
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oligonucleotide

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<210> 2299
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<220>
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oligonucleotide

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<210> 2300
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oligonucleotide

<400> 2300
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<210> 2301
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<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2301
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<210> 2302
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<210> 2303
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<210> 2304
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<210> 2305
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<210> 2306
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<210> 2307
 <211> 51

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<212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2307
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<210> 2308
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<220>
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<400> 2308
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<210> 2309
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2309
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<210> 2310
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2310
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<210> 2311
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 2311
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<210> 2312
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 <212> DNA
 <213> Artificial Sequence

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<220>
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<400> 2312
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<210> 2313
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2313
 aagtccagcc agagtgtttt atccagctcc aacaataaga actacttagc t 51

<210> 2314
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 2314
 aagtccagcc agagtgtttt atccagctcc aacaataaga actacttagc t 51

<210> 2315
 <211> 51
 <212> DNA
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<220>
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<400> 2315
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<210> 2316
 <211> 51
 <212> DNA
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<220>
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<400> 2316
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<210> 2317
 <211> 51
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

4358741_1

<400> 2317
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<210> 2318
<211> 51
<212> DNA
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<220>
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oligonucleotide

<400> 2318
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<210> 2319
<211> 51
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2319
aagtccagcc agagtgtttt atccagctcc aacaataaga actacttagc t 51

<210> 2320
<211> 51
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2320
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<210> 2321
<211> 51
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2321
aagtccagcc agagtgtttt atccagctcc aacaataaga actacttagc t 51

<210> 2322
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2322
tctggaagta gctccaacat cggaagtcaa actgtaaac 39

<210> 2323
 <211> 39
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2323
 tctggaagta gtcaccaat cggaagtcaa actgtaaac 39

<210> 2324
 <211> 39
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2324
 tctggaagta gtcaccaat cggaagtaat tatgtaaac 39

<210> 2325
 <211> 39
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2325
 tctggaagta gtcaccaat cggaagtaat tatgtaaac 39

<210> 2326
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 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2326
 tctggaagta gtcaccaat cggaagtcaa actgtaaac 39

<210> 2327
 <211> 39
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2327
 tctggaagta gtcaccaat cggaagtaat tatgtaaac 39

<210> 2328

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<211> 39
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<220>
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oligonucleotide

<400> 2328
tctggaagta gctccaacat cggaagtaat actgtaaac 39

<210> 2329
<211> 39
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<220>
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oligonucleotide

<400> 2329
tctggaagta gctccaacat cggaagtaat actgtaaac 39

<210> 2330
<211> 39
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<220>
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oligonucleotide

<400> 2330
tctggaagta gctccaacat cggaagtaat actgtaaac 39

<210> 2331
<211> 39
<212> DNA
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<220>
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oligonucleotide

<400> 2331
tctggaagta gctccaacat cggaagtaat actgtaaac 39

<210> 2332
<211> 39
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2332
tctggaagta gctccaacat cggaagtaat actgtaaac 39

<210> 2333
<211> 39
<212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2333
 tctggaagta gctccaacat cggaagtaat tatgtaaac 39

 <210> 2334
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2334
 tctggaagta gctccaacat cggaagtaat tatgtaaac 39

 <210> 2335
 <211> 39
 <212> DNA
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 <220>
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 oligonucleotide

 <400> 2335
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 <210> 2336
 <211> 33
 <212> DNA
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21

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 <400> 2371
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<210> 2383
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<210> 2384
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<210> 2385
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<210> 2387
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<210> 2388
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<210> 2389
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<210> 2392
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<210> 2393
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<220>
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<210> 2394
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<210> 2395
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<210> 2396

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<210> 2398
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<210> 2404
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<210> 2406
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oligonucleotide

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<210> 2408
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oligonucleotide

<400> 2408
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<210> 2409
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<210> 2411
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<210> 2423

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21

<210> 2424

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21

<210> 2425

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21

<210> 2426

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21

<210> 2427

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<400> 2427
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<210> 2428
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<400> 2428
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<210> 2429
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<400> 2429
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<210> 2430
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<210> 2431
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<400> 2431
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<210> 2432
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<210> 2615
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<210> 2628

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27

<210> 2629

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27

<210> 2630

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27

<210> 2631

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<210> 2634
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<210> 2638
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<210> 2639
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<210> 2641
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<210> 2651
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 <400> 2651
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<210> 2653
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<400> 2653
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<210> 2654
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<400> 2654
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<210> 2655
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<400> 2655
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<210> 2656
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<400> 2657
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<210> 2658
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<400> 2658
caacagagtt acagtaccct gatcagt 27

<210> 2659
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<400> 2659
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<210> 2660
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<400> 2660
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<210> 2661
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<400> 2661
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<210> 2662
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<400> 2662
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<210> 2663
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<400> 2663
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<210> 2664
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<400> 2664
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<210> 2665
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<400> 2665
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<210> 2666
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<400> 2666
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<210> 2667
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<400> 2667
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<210> 2668

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<400> 2669
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<210> 2671
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<210> 2833

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<210> 2834

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<210> 2835

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<210> 2851
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<210> 2854
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<210> 2855
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<210> 2859
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<210> 2860
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<210> 2861
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<400> 2861
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<210> 2862
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<210> 2863
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<210> 2866
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<400> 2866
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<210> 2867
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<400> 2867
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<210> 2868
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<400> 2868
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<210> 2869
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<400> 2869
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<400> 2871
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<210> 2872

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 <400> 2872
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 <210> 2873
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 <210> 2876
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 <210> 2877
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<210> 2878
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<400> 2878
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<210> 2879
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 <212> DNA
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<220>
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<400> 2879
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<210> 2880
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<400> 2880
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<210> 2881
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<400> 2881
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<210> 2882
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<210> 2883
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<400> 2883
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<210> 2884
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<210> 2885
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<210> 2886
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<210> 2887
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<400> 2887

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gctatatggt atgatgcaaa taataaatac tatgcagacg ccgtgaaggg c 51

<210> 2888
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<400> 2888
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<210> 2889
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<400> 2889
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<210> 2890
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 oligonucleotide

<400> 2890
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<210> 2891
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<400> 2891
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<210> 2892
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<400> 2892
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<210> 2893
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<220>
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oligonucleotide

<400> 2893
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<210> 2894
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oligonucleotide

<400> 2894
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<210> 2895
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oligonucleotide

<400> 2895
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<210> 2896
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oligonucleotide

<400> 2896
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<210> 2897
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<400> 2897
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<210> 2898
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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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51

<210> 2899

<211> 51

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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<210> 2900

<211> 51

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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51

<210> 2901

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2901

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51

<210> 2902

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2902

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<210> 2903

<211> 51

<212> DNA

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<220>

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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51

<210> 2904
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<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2904
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51

<210> 2905
<211> 48
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2905
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48

<210> 2906
<211> 48
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2906
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48

<210> 2907
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2907
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48

<210> 2908
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<220>
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4358741_1

<400> 2908
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<210> 2909
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<220>
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oligonucleotide

<400> 2909
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<210> 2910
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<220>
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oligonucleotide

<400> 2910
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<210> 2911
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oligonucleotide

<400> 2911
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<210> 2912
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oligonucleotide

<400> 2912
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<210> 2913
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oligonucleotide

<400> 2913
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<210> 2914
 <211> 51
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<210> 2915
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<210> 2916
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<210> 2917
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<210> 2919
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<210> 2920
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<210> 2921
 <211> 51
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<210> 2922
 <211> 51
 <212> DNA
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 oligonucleotide
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<210> 2923
 <211> 51
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 oligonucleotide
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<210> 2924
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<220>
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oligonucleotide

<400> 2924
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<210> 2925
<211> 51
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<220>
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oligonucleotide

<400> 2925
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<210> 2926
<211> 51
<212> DNA
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<220>
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oligonucleotide

<400> 2926
tggatcagcc ctaacagtgg tgaaacaagc tatgcacaga agtttcagga c 51

<210> 2927
<211> 51
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2927
tggatcagcc ctaacagtgg tgacacaagc tatgcacaga agtttcagga c 51

<210> 2928
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2928
tggatcagcc ctaacagtgg tgaaacaagc tatgcacaga agtttcagga c 51

<210> 2929
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

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<400> 2929
tggatcagcc ctaacagtgg tgacacaagc tatgcacaga agtttcagga c 51

<210> 2930
<211> 51
<212> DNA
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oligonucleotide

<400> 2930
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<210> 2931
<211> 51
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oligonucleotide

<400> 2931
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<210> 2932
<211> 51
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oligonucleotide

<400> 2932
tggatcaacc ctgaaagtgg tggcacagac tattcacaga ggtttcaggg c 51

<210> 2933
<211> 51
<212> DNA
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<220>
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oligonucleotide

<400> 2933
tggatcaacc ctgaaagtgg tggcacagac tattcacaga ggtttcaggg c 51

<210> 2934
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 2934
tggatcaacc ctgacagtgg tggcacagac tattcacaga ggtttcaggg c 51

<210> 2935
 <211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2935
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<210> 2936
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2936
 tggatcaacc ctgaaagtgg tggcacagac tattcacaga ggtttcaggg c 51

<210> 2937
 <211> 51
 <212> DNA
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2937
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<210> 2938
 <211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2938
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<210> 2939
 <211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2939
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<210> 2940

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<211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2940
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<210> 2941
 <211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2941
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<210> 2942
 <211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2942
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<210> 2943
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<220>
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 oligonucleotide

<400> 2943
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<210> 2944
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<220>
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 oligonucleotide

<400> 2944
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<210> 2945
 <211> 51
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<220>
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<400> 2945
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<210> 2946
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2946
tggataagcc ctaaccaagg tgacacaaac tatgcacaga agtttcagga c 51

<210> 2947
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2947
tggataagcc ctaacaatgg tgaaacaaac tatgcacaga agtttcagga c 51

<210> 2948
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2948
tggataagcc ctaaccaagg tgaaacaaac tatgcacaga agtttcagga c 51

<210> 2949
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2949
tggataagcc ctaaccaagg tgaaacaaac tatgcacaga agtttcagga c 51

<210> 2950
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

oligonucleotide

<400> 2950
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<210> 2951
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2951
 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c 51

<210> 2952
 <211> 51
 <212> DNA
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<220>
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 oligonucleotide

<400> 2952
 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c 51

<210> 2953
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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 oligonucleotide

<400> 2953
 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c 51

<210> 2954
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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 oligonucleotide

<400> 2954
 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c 51

<210> 2955
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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 oligonucleotide

<400> 2955

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tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c	51
<210> 2956 <211> 51 <212> DNA <213> Artificial Sequence	
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<210> 2957 <211> 51 <212> DNA <213> Artificial Sequence	
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<210> 2958 <211> 51 <212> DNA <213> Artificial Sequence	
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<210> 2959 <211> 51 <212> DNA <213> Artificial Sequence	
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<400> 2959 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c	51
<210> 2960 <211> 51 <212> DNA <213> Artificial Sequence	
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<400> 2960 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c	51

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<210> 2961
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2961
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 <210> 2962
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2962
 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c 51

 <210> 2963
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 <220>
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 oligonucleotide

 <400> 2963
 tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c 51

 <210> 2964
 <211> 51
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2964
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 <210> 2965
 <211> 51
 <212> DNA
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 <220>
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 oligonucleotide

 <400> 2965
 gttatatggt atgatgcaag taataaatac tatgcagacg ccgtgaaggg c 51

 <210> 2966
 <211> 51
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2966

tggatcaacc ctaacagtgg tggcacaaac tatgcacaga agtttcaggg c

51

<210> 2967

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2967

gttatatggt atgatggaag taataagttc catgcagact ccgtgaaggg c

51

<210> 2968

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2968

tggatgaacc ctaacagtgg taacacaggc tatgcacaga agttccaggg c

51

<210> 2969

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2969

gttatatggt atgatgcaag taataagttc catgcagacg ccgtgaaggg c

51

<210> 2970

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2970

gttatatggt atgatgcaag taataagttc catgcagacg ccgtgaaggg c

51

<210> 2971

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2971
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<210> 2972
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<220>
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<400> 2972
gttatatggt atgatgcaag taataagttc catgcagacg ccgtgaaggg c 51

<210> 2973
<211> 51
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2973
gttatatggt atgatgcaag taataagttc catgcagact ccgtgaaggg c 51

<210> 2974
<211> 51
<212> DNA
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<220>
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<400> 2974
gttatatggt atgatggaag taataagttc catgcagacg ccgtgaaggg c 51

<210> 2975
<211> 51
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2975
tggatgaacc ctaacagtgg tggcacaggc tatgcacaga agttccaggg c 51

<210> 2976
<211> 51
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<220>
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<210> 2977
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<220>
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 oligonucleotide

<400> 2977
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<210> 2978
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<220>
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 oligonucleotide

<400> 2978
 tggatgaacc ctaacagtgg tggcacaggc tatgcacaga agttccaggg c 51

<210> 2979
 <211> 51
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<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2979
 tggatgaacc ctaacagtgg tggcacaggc tatgcacaga agttccaggg c 51

<210> 2980
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
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 oligonucleotide

<400> 2980
 tggatgaacc ctaacagtgg taacacaggc tatgcacaga agttccaggg c 51

<210> 2981
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 2981
 tggatgaacc ctaacagtgg tggcacaggc tatgcacaga agttccaggg c 51

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<210> 2982
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2982
 tggatgaacc ctaacagtgg tggcacaggc tatgcacaga agttccaggg c 51

<210> 2983
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2983
 gttatatggt atgatgcaag taataagttc catgcagacg ccgtgaaggg c 51

<210> 2984
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2984
 gggggggatt acgtttgggg gacttatcgg cctcactact actacggtat ggacgtc 57

<210> 2985
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2985
 gatgggacga tctttggagt ggtcttgggg gactac 36

<210> 2986
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 2986
 gatgggacga tttttggagt gctcttgggg gactac 36

<210> 2987
 <211> 33

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2987
 gataggacga tttttggagt ggttcttgac tac 33

 <210> 2988
 <211> 42
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2988
 gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

 <210> 2989
 <211> 42
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2989
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 <210> 2990
 <211> 42
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2990
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 <210> 2991
 <211> 42
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 2991
 gaggccacga tttttggaat gcttattgta ccatttgact ac 42

 <210> 2992
 <211> 48
 <212> DNA
 <213> Artificial Sequence

4358741_1

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 2992
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 <400> 2993
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 <210> 2994
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 <210> 2995
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 <210> 2996
 <211> 27
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<210> 2998
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oligonucleotide

<400> 2998
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oligonucleotide

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<210> 3000
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oligonucleotide

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oligonucleotide

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<210> 3002
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oligonucleotide

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<210> 3003
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 oligonucleotide

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<210> 3004
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 oligonucleotide

<400> 3004
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<210> 3005
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 oligonucleotide

<400> 3005
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<210> 3006
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 oligonucleotide

<400> 3006
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 oligonucleotide

<400> 3007
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<210> 3008

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 oligonucleotide

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 <210> 3010
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 oligonucleotide

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 <210> 3011
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 <220>
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 oligonucleotide

 <400> 3011
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 <210> 3012
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 <220>
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 oligonucleotide

 <400> 3012
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 <210> 3013
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<220>
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 oligonucleotide

<400> 3013
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<210> 3014
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<220>
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 oligonucleotide

<400> 3014
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<210> 3015
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<220>
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 oligonucleotide

<400> 3015
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<210> 3016
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<220>
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 oligonucleotide

<400> 3016
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<210> 3017
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 oligonucleotide

<400> 3017
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<210> 3018
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oligonucleotide

<400> 3018
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<210> 3019
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oligonucleotide

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oligonucleotide

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<210> 3021
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oligonucleotide

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<210> 3022
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oligonucleotide

<400> 3022
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<210> 3023
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oligonucleotide

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oligonucleotide

<400> 3024
gataggacga tttttggagt ggttcttgac tac 33

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oligonucleotide

<400> 3025
gataggacga tttttggagt ggttcttgac tac 33

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oligonucleotide

<400> 3026
gataggacga tttttggagt ggttcttgac tac 33

<210> 3027
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oligonucleotide

<400> 3027
gataggacga tttttggagt ggttcttgac tac 33

<210> 3028
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oligonucleotide

<400> 3028
gataggacga tttttggagt ggttcttgac tac 33

<210> 3029
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 oligonucleotide

 <400> 3029
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 <210> 3030
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 oligonucleotide

 <400> 3030
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 <210> 3031
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 <212> DNA
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 oligonucleotide

 <400> 3031
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 <210> 3032
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 oligonucleotide

 <400> 3032
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 <210> 3033
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 oligonucleotide

 <400> 3033
 gataggacga tttttggagt gctcttgggg gactac 36

 <210> 3034
 <211> 36
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3034

gatgggacga tttttggagt gctcttgggg gactac

36

<210> 3035

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3035

gataggacga tttttggagt gctcttgggg gactac

36

<210> 3036

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3036

gatgggacga tttttggagt gctcttgggg gactac

36

<210> 3037

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3037

gatgggacga tttttggagt gctcttgggg gactac

36

<210> 3038

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3038

gatgggacga tttttggagt gctcttgggg gactac

36

<210> 3039

<211> 33

<212> DNA

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<220>

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3039
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<210> 3040
<211> 33
<212> DNA
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<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3040
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3041
<211> 33
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<400> 3041
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3042
<211> 33
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3042
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3043
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3043
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3044
<211> 33
<212> DNA
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<220>
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<400> 3044
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3045
<211> 33
<212> DNA
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<220>
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oligonucleotide

<400> 3045
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3046
<211> 33
<212> DNA
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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3046
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3047
<211> 33
<212> DNA
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<220>
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oligonucleotide

<400> 3047
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3048
<211> 33
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3048
gatcggacga tttttggagt ggtccttgag tac 33

<210> 3049
<211> 33
<212> DNA
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<220>
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oligonucleotide

<400> 3049
gatcggacga tttttggagt ggtccttgag tac 33

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<210> 3050
 <211> 33
 <212> DNA
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 oligonucleotide
 <400> 3050
 gggattacga tttttggtca tgggtttgaa tat 33

<210> 3051
 <211> 33
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
 <400> 3051
 gggattacga tttttggtca tgggtttgaa tat 33

<210> 3052
 <211> 33
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 oligonucleotide
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<210> 3053
 <211> 33
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 oligonucleotide
 <400> 3053
 gggattacga tttttggtca tgggtttgaa tat 33

<210> 3054
 <211> 33
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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
 <400> 3054
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<210> 3055
 <211> 33

<212> DNA
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<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3055
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33

<210> 3056
 <211> 33
 <212> DNA
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<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3056
 gatcaggcga tttttggagt ggtccccgac tac

33

<210> 3057
 <211> 33
 <212> DNA
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<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3057
 gatcaggcga tttttggagt ggtccccgac tac

33

<210> 3058
 <211> 33
 <212> DNA
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<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3058
 gatcaggcga tttttggagt ggtccccgac tac

33

<210> 3059
 <211> 33
 <212> DNA
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<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3059
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33

<210> 3060
 <211> 33
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<220>
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 <400> 3060
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 <210> 3061
 <211> 33
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3061
 gatcaggcga tttttggagt ggtccccgac tac 33

 <210> 3062
 <211> 48
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 <400> 3062
 gatcgtatta cgatttttgg agtggttatg gggggcggtg tggacgtc 48

 <210> 3063
 <211> 48
 <212> DNA
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 <220>
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 <400> 3063
 gatcgtatta cgatttttgg agtggttatg gggggcggtg tggacgtc 48

 <210> 3064
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 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3064
 gatcgtatta cgatttttgg agtggttatg gggggcggtg tggacgtc 48

 <210> 3065
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

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<400> 3065
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<210> 3066
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3066
gatcgtatta cgatTTTTTgg agtggTtatg gggggcggtA tggacgTc 48

<210> 3067
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3067
gatcgtatta cgatTTTTTgg agtggTtatg gggggcggtA tggacgTc 48

<210> 3068
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3068
gatcgtatta cgatTTTTTgg agtggTtatg gggggcggtA tggacgTc 48

<210> 3069
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3069
gaggccacga tttttggaat ggTtattgta ccgTTtgact ac 42

<210> 3070
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 3070
gaggccacga tttttggaat ggTtattgta ccgTTtgact ac 42

<210> 3071
<211> 42
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<220>
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oligonucleotide

<400> 3071
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3072
<211> 42
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3072
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3073
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3073
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3074
<211> 42
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3074
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3075
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3075
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3076

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<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3076
gaggccacga tttttggaat ggttattgta ccgtttgact ac

42

<210> 3077
<211> 42
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3077
gaggccacga tttttggaat ggttattgta ccgtttgact ac

42

<210> 3078
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3078
gaggccacga tttttggaat ggttattgta ccgtttgact ac

42

<210> 3079
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3079
gaggccacga tttttggaat ggttattgta ccgtttgact ac

42

<210> 3080
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3080
gaggccacga tttttggaat gcttattgta ccatttgact ac

42

<210> 3081
<211> 42
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3081

gaggccacga tttttggaat gcttattgta ccatttgact ac

42

<210> 3082

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3082

gaggccacga tttttggaat gcttattgta ccatttgact ac

42

<210> 3083

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3083

gaggccacga tttttggaat gcttattgta ccatttgact ac

42

<210> 3084

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3084

gaggccacga tttttggaat gcttattgta ccatttgact ac

42

<210> 3085

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3085

gaggccacga tttttggaat gcttattgta ccatttgact ac

42

<210> 3086

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

oligonucleotide

<400> 3086
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<210> 3087
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3087
gaggccacga tttttggaat gcttattgta ccatttgact ac 42

<210> 3088
<211> 42
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3088
gaggccacga tttttggaat gcttattgta ccatttgact ac 42

<210> 3089
<211> 42
<212> DNA
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<220>
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oligonucleotide

<400> 3089
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3090
<211> 42
<212> DNA
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<220>
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oligonucleotide

<400> 3090
gaggccacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3091
<211> 42
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<220>
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oligonucleotide

<400> 3091

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gagggcacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3092
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 <212> DNA
 <213> Artificial Sequence

<220>
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 oligonucleotide

<400> 3092
 gagggcacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3093
 <211> 42
 <212> DNA
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<220>
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 oligonucleotide

<400> 3093
 gagggcacga tttttggaat ggttattgta ccgtttgact ac 42

<210> 3094
 <211> 42
 <212> DNA
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<220>
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 oligonucleotide

<400> 3094
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<220>
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<400> 3095
 gagggcacga tttttggaat gcttattgta ccatttgact ac 42

<210> 3096
 <211> 42
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 3096
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4358741_1

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oligonucleotide

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42

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oligonucleotide

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oligonucleotide

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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3101
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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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42

<210> 3103

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3103

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42

<210> 3104

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 3104

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42

<210> 3105

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic oligonucleotide

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42

<210> 3106

<211> 42

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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42

<210> 3107

<211> 57

<212> DNA

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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

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<210> 3108
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3108
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<210> 3109
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3109
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<210> 3110
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

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<210> 3111
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<220>
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oligonucleotide

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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

4358741_1

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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

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<210> 3114
<211> 57
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<220>
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oligonucleotide

<400> 3114
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<210> 3115
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3115
gggggggatt acgtttgggg gacttatcgg cctcactact actacggtat ggacgtc 57

<210> 3116
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3116
gggggggatt acgtttgggg gacttatcgg cctcactact actacggtat ggacgtc 57

<210> 3117
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3117
gggggggatt acgtttgggg gacttatcgg cctcactact actacggtat ggacgtc 57

4358741_1

<210> 3118
 <211> 57
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 3118
 ggggggggatt acgttttgggg gacttatcgg cctcactact actacggtat ggacgtc 57

 <210> 3119
 <211> 57
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 3119
 ggggggggatt acgttttctgg gacttatcgg cctcactact actacggtat ggacgtc 57

 <210> 3120
 <211> 57
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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 3120
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 <210> 3121
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 3121
 gataggacga tctttggagt ggtcttgggg gactac 36

 <210> 3122
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 3122
 gataggacga tttttggagt gctcttgggg gactac 36

 <210> 3123
 <211> 57

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<212> DNA
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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
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 gggggggatt acgtttgggg gacttatcgg cctcactact actacggtat ggacgtc 57

<210> 3124
 <211> 36
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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
 <400> 3124
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

<210> 3125
 <211> 60
 <212> DNA
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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
 <400> 3125
 gggggtgatt acgtttgggg gagttatcgt ccctactact actactacgg tatggacgtc 60

<210> 3126
 <211> 36
 <212> DNA
 <213> Artificial Sequence
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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
 <400> 3126
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

<210> 3127
 <211> 36
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide
 <400> 3127
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

<210> 3128
 <211> 36
 <212> DNA
 <213> Artificial Sequence

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<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3128
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

 <210> 3129
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3129
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

 <210> 3130
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3130
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

 <210> 3131
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3131
 ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

 <210> 3132
 <211> 60
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

 <400> 3132
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 <210> 3133
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 <220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

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<400> 3133
gggggtgatt acgtttgggg gagttatcgt ccctactact actactacgg tatggacgtc 60

<210> 3134
<211> 60
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3134
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<210> 3135
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3135
gggggtgatt acgtttgggg gagttatcgt ccctactact actactacgg tatggacgtc 60

<210> 3136
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3136
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<210> 3137
<211> 60
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3137
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<210> 3138
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3138
gggggtgatt acgttttcgg gagttatcgt ccctactact actactacgg tatggacgtc 60

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<210> 3139
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3139
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<210> 3140
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 3140
ggaaaagtgg ctggtatgcc tgaagctttt gaaatc 36

<210> 3141
<211> 466
<212> PRT
<213> Homo sapiens

<400> 3141
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1 5 10 15

Gly Leu Leu Leu Gln Arg Ala Glu Thr Gly Ser Lys Gly Gln Thr Ala
20 25 30

Gly Glu Leu Tyr Gln Arg Trp Glu Arg Tyr Arg Arg Glu Cys Gln Glu
35 40 45

Thr Leu Ala Ala Ala Glu Pro Pro Ser Gly Leu Ala Cys Asn Gly Ser
50 55 60

Phe Asp Met Tyr Val Cys Trp Asp Tyr Ala Ala Pro Asn Ala Thr Ala
65 70 75 80

Arg Ala Ser Cys Pro Trp Tyr Leu Pro Trp His His His Val Ala Ala
85 90 95

Gly Phe Val Leu Arg Gln Cys Gly Ser Asp Gly Gln Trp Gly Leu Trp
100 105 110

Arg Asp His Thr Gln Cys Glu Asn Pro Glu Lys Asn Glu Ala Phe Leu
115 120 125

Asp Gln Arg Leu Ile Leu Glu Arg Leu Gln Val Met Tyr Thr Val Gly
130 135 140

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Tyr Ser Leu Ser Leu Ala Thr Leu Leu Leu Ala Leu Leu Ile Leu Ser
 145 150 155 160
 Leu Phe Arg Arg Leu His Cys Thr Arg Asn Tyr Ile His Ile Asn Leu
 165 170 175
 Phe Thr Ser Phe Met Leu Arg Ala Ala Ala Ile Leu Ser Arg Asp Arg
 180 185 190
 Leu Leu Pro Arg Pro Gly Pro Tyr Leu Gly Asp Gln Ala Leu Ala Leu
 195 200 205
 Trp Asn Gln Ala Leu Ala Ala Cys Arg Thr Ala Gln Ile Val Thr Gln
 210 215 220
 Tyr Cys Val Gly Ala Asn Tyr Thr Trp Leu Leu Val Glu Gly Val Tyr
 225 230 235 240
 Leu His Ser Leu Leu Val Leu Val Gly Gly Ser Glu Glu Gly His Phe
 245 250 255
 Arg Tyr Tyr Leu Leu Leu Gly Trp Gly Ala Pro Ala Leu Phe Val Ile
 260 265 270
 Pro Trp Val Ile Val Arg Tyr Leu Tyr Glu Asn Thr Gln Cys Trp Glu
 275 280 285
 Arg Asn Glu Val Lys Ala Ile Trp Trp Ile Ile Arg Thr Pro Ile Leu
 290 295 300
 Met Thr Ile Leu Ile Asn Phe Leu Ile Phe Ile Arg Ile Leu Gly Ile
 305 310 315 320
 Leu Leu Ser Lys Leu Arg Thr Arg Gln Met Arg Cys Arg Asp Tyr Arg
 325 330 335
 Leu Arg Leu Ala Arg Ser Thr Leu Thr Leu Val Pro Leu Leu Gly Val
 340 345 350
 His Glu Val Val Phe Ala Pro Val Thr Glu Glu Gln Ala Arg Gly Ala
 355 360 365
 Leu Arg Phe Ala Lys Leu Gly Phe Glu Ile Phe Leu Ser Ser Phe Gln
 370 375 380
 Gly Phe Leu Val Ser Val Leu Tyr Cys Phe Ile Asn Lys Glu Val Gln
 385 390 395 400
 Ser Glu Ile Arg Arg Gly Trp His His Cys Arg Leu Arg Arg Ser Leu
 405 410 415

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Gly Glu Glu Gln Arg Gln Leu Pro Glu Arg Ala Phe Arg Ala Leu Pro
 420 425 430

Ser Gly Ser Gly Pro Gly Glu Val Pro Thr Ser Arg Gly Leu Ser Ser
 435 440 445

Gly Thr Leu Pro Gly Pro Gly Asn Glu Ala Ser Arg Glu Leu Glu Ser
 450 455 460

Tyr Cys
 465

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 <211> 2024
 <212> DNA
 <213> Homo sapiens

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 atcgcccctg cacgaaccag acccttcgcc gccctcacga tgactacctc tccgatcctg 120
 cagctgctgc tgcggctctc actgtgcggg ctgctgctcc agagggcgga gacaggctct 180
 aaggggcaga cggcggggga gctgtaccag cgctgggaac ggtaccgcag ggagtgccag 240
 gagaccttgg cagccgcgga accgccttca ggcctcgcct gtaacgggtc cttcgatatg 300
 tacgtctgct gggactatgc tgcacccaat gccactgccc gtgcgtcctg cccctggtac 360
 ctgccctggc accaccatgt ggctgcaggt ttcgtcctcc gccagtgtgg cagtgatggc 420
 caatggggac tttggagaga ccatacaca tgtgagaacc cagagaagaa tgaggccttt 480
 ctggacaaa ggctcatctt ggagcggttg cagggtcatgt acactgtcgg ctactccctg 540
 tctctcgcca cactgctgct agccctgctc atcttgagtt tgttcaggcg gctacattgc 600
 actagaaact atatccacat caacctgttc acgtctttca tgctgcgagc tgcggccatt 660
 ctcagccgag accgtctgct acctcgacct ggcccctacc ttggggacca ggcccttgcg 720
 ctgtggaacc aggccctcgc tgcctgccgc acggcccaga tcgtgacca gtactgcgtg 780
 ggtgccaaact acacgtggct gctgggtggag ggcgtctacc tgcacagtct cctggtgctc 840
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 gcgcttttcg tcattccctg ggtgatcgtc aggtacctgt acgagaacac gcagtgtggtg 960
 gagcgcaacg aagtcaaggc ctttggttg attatacgga ccccatcct catgaccatc 1020
 ttgattaatt tcctcatttt tatccgcatt cttggcattc tcctgtccaa gctgaggaca 1080
 cggcaaatgc gctgccggga ttaccggctg aggctggctc gctccacgct gacgctggtg 1140
 cccctgctgg gtgtccacga ggtggtgttt gctcccgtga cagaggaaca ggccggggc 1200
 gccctgcgct tcgccaagct cggctttgag atcttctca gctccttcca gggcttcctg 1260
 gtcagcgtcc tctactgctt catcaacaag gaggtgcagt cggagatccg ccgtggctgg 1320

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caccactgcc gcctgcgccg cagcctgggc gaggagcaac gccagctccc ggagcgcgcc 1380
 ttccgggccc tgccctccgg ctccggcccc ggcgaggtcc ccaccagccg cggcttgctc 1440
 tcggggaccc tcccagggcc tgggaatgag gccagccggg agttggaaag ttactgctag 1500
 ggggcgggat ccccggtgtct gttcagttag catggattta ttgagtgcc actgcgtgcc 1560
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 aaggcgctca gccttggctg gagtagaatt aagtcagagc caacaggtgg ggagagacag 1920
 agaagtgggc aggggcaccc aagttgggat ttcatttcag gtgcattgga gattcttagg 1980
 agtgtctctt gggggtaata ttttattttt taaaaaatga ggat 2024

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 <212> PRT
 <213> Homo sapiens

<400> 3143
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Gly Leu Leu Leu Gln Arg Ala Glu Thr Gly Ser Lys Gly Gln Thr Ala
 20 25 30

Gly Glu Leu Tyr Gln Arg Trp Glu Arg Tyr Arg Arg Glu Cys Gln Glu
 35 40 45

Thr Leu Ala Ala Ala Glu Pro Pro Ser Val Ala Ala Gly Phe Val Leu
 50 55 60

Arg Gln Cys Gly Ser Asp Gly Gln Trp Gly Leu Trp Arg Asp His Thr
 65 70 75 80

Gln Cys Glu Asn Pro Glu Lys Asn Glu Ala Phe Leu Asp Gln Arg Leu
 85 90 95

Ile Leu Glu Arg Leu Gln Val Met Tyr Thr Val Gly Tyr Ser Leu Ser
 100 105 110

Leu Ala Thr Leu Leu Leu Ala Leu Leu Ile Leu Ser Leu Phe Arg Arg
 115 120 125

Leu His Cys Thr Arg Asn Tyr Ile His Ile Asn Leu Phe Thr Ser Phe
 130 135 140

Met Leu Arg Ala Ala Ala Ile Leu Ser Arg Asp Arg Leu Leu Pro Arg
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				4358741_1											
145				150				155				160			
Pro	Gly	Pro	Tyr	Leu 165	Gly	Asp	Gln	Ala	Leu 170	Ala	Leu	Trp	Asn	Gln 175	Ala
Leu	Ala	Ala	Cys 180	Arg	Thr	Ala	Gln	Ile 185	Val	Thr	Gln	Tyr	Cys 190	Val	Gly
Ala	Asn	Tyr 195	Thr	Trp	Leu	Leu	Val 200	Glu	Gly	Val	Tyr	Leu 205	His	Ser	Leu
Leu	Val 210	Leu	Val	Gly	Gly	Ser 215	Glu	Glu	Gly	His	Phe 220	Arg	Tyr	Tyr	Leu
Leu 225	Leu	Gly	Trp	Gly	Ala 230	Pro	Ala	Leu	Phe	Val 235	Ile	Pro	Trp	Val	Ile 240
Val	Arg	Tyr	Leu	Tyr 245	Glu	Asn	Thr	Gln	Cys 250	Trp	Glu	Arg	Asn	Glu 255	Val
Lys	Ala	Ile	Trp 260	Trp	Ile	Ile	Arg	Thr 265	Pro	Ile	Leu	Met	Thr 270	Ile	Leu
Ile	Asn	Phe 275	Leu	Ile	Phe	Ile	Arg 280	Ile	Leu	Gly	Ile	Leu 285	Leu	Ser	Lys
Leu	Arg 290	Thr	Arg	Gln	Met	Arg 295	Cys	Arg	Asp	Tyr	Arg 300	Leu	Arg	Leu	Ala
Arg 305	Ser	Thr	Leu	Thr	Leu 310	Val	Pro	Leu	Leu	Gly 315	Val	His	Glu	Val	Val 320
Phe	Ala	Pro	Val	Thr 325	Glu	Glu	Gln	Ala	Arg 330	Gly	Ala	Leu	Arg	Phe 335	Ala
Lys	Leu	Gly	Phe 340	Glu	Ile	Phe	Leu	Ser 345	Ser	Phe	Gln	Gly	Phe 350	Leu	Val
Ser	Val	Leu 355	Tyr	Cys	Phe	Ile	Asn 360	Lys	Glu	Val	Gln	Ser 365	Glu	Ile	Arg
Arg	Gly 370	Trp	His	His	Cys	Arg 375	Leu	Arg	Arg	Ser	Leu 380	Gly	Glu	Glu	Gln
Arg 385	Gln	Leu	Pro	Glu	Arg 390	Ala	Phe	Arg	Ala	Leu 395	Pro	Ser	Gly	Ser	Gly 400
Pro	Gly	Glu	Val	Pro 405	Thr	Ser	Arg	Gly	Leu 410	Ser	Ser	Gly	Thr	Leu 415	Pro
Gly	Pro	Gly	Asn	Glu	Ala	Ser	Arg	Glu	Leu	Glu	Ser	Tyr	Cys		

<210> 3144
 <211> 1290
 <212> DNA
 <213> Homo sapiens

<400> 3144
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 cagcgcgcgg aaaccggcag caaaggccag accgcgggag aactgtatca gcgctgggaa 120
 cgctatcgcc gcgaatgcca ggaaaccctg gcggcggcgg aaccgccgag cgtggcggcg 180
 ggctttgtgc tgcgccagtgc cggcagcgat ggccagtggg gcctgtggcg cgatcatacc 240
 cagtgcgaaa acccggaaaa aaacgaagcg tttctggatc agcgcctgat tctggaacgc 300
 ctgcaggatga tgtataccgt gggctatagc ctgagcctgg cgaccctgct gctggcgctg 360
 ctgattctga gcctgtttcg ccgcctgcat tgcaccgcga actatattca tattaacctg 420
 tttaccagct ttatgctgcg cgcggcggcg attctgagcc gcgatcgctt gctgccgcgc 480
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 gaaggcgtgt atctgcatag cctgctgggtg ctgggtggcg gcagcgaaga aggccatttt 660
 cgctattatc tgctgctggg ctggggcgcg ccggcgctgt ttgtgattcc gtgggtgatt 720
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 gaaatttttc tgagcagctt tcagggtctt ctgggtgagc tgctgtattg ctttattaac 1080
 aaagaagtgc agagcgaaat tcgccgcggc tggcatcatt gccgcctgcg ccgcagcctg 1140
 ggcaagaac agcgccagct gccggaacgc gcgtttcgcg cgctgccgag cggcagcggc 1200
 ccgggcgaag tgccgaccag ccgcggcctg agcagcggca ccctgccggg cccgggcaac 1260
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<210> 3145
 <211> 493
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3145
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4358741_1

Gly Leu Leu ²⁰Leu Gln Arg Ala Glu ²⁵Thr Gly Ser Lys Gly Gln ³⁰Thr Ala
 Gly Glu ³⁵Leu Tyr Gln Arg Trp ⁴⁰Glu Arg Tyr Arg Arg ⁴⁵Glu Cys Gln Glu
 Thr ⁵⁰Leu Ala Ala Ala Glu ⁵⁵Pro Pro Ser Gly Leu ⁶⁰Ala Cys Asn Gly Ser
 Phe ⁶⁵Asp Met Tyr Val ⁷⁰Cys Trp Asp Tyr Ala ⁷⁵Ala Pro Asn Ala Thr ⁸⁰Ala
 Arg Ala Ser Cys ⁸⁵Pro Trp Tyr Leu Pro ⁹⁰Trp His His His Val ⁹⁵Ala Ala
 Gly Phe Val ¹⁰⁰Leu Arg Gln Cys Gly ¹⁰⁵Ser Asp Gly Gln Trp ¹¹⁰Gly Leu Trp
 Arg Asp ¹¹⁵His Thr Gln Cys Glu ¹²⁰Asn Pro Glu Lys Asn ¹²⁵Glu Ala Phe Leu
 Asp ¹³⁰Gln Arg Leu Ile Leu ¹³⁵Glu Arg Leu Gln Val ¹⁴⁰Met Tyr Thr Val Gly
 Tyr ¹⁴⁵Ser Leu Ser Leu ¹⁵⁰Ala Thr Leu Leu Leu ¹⁵⁵Ala Leu Leu Ile Leu ¹⁶⁰Ser
 Leu Phe Arg Arg ¹⁶⁵Leu His Cys Thr Arg ¹⁷⁰Asn Tyr Ile His Ile ¹⁷⁵Asn Leu
 Phe Thr Ser ¹⁸⁰Phe Met Leu Arg Ala ¹⁸⁵Ala Ala Ile Leu Ser ¹⁹⁰Arg Asp Arg
 Leu Leu ¹⁹⁵Pro Arg Pro Gly Pro ²⁰⁰Tyr Leu Gly Asp Gln ²⁰⁵Ala Leu Ala Leu
 Trp ²¹⁰Asn Gln Ala Leu Ala ²¹⁵Ala Cys Arg Thr Ala ²²⁰Gln Ile Val Thr Gln
 Tyr ²²⁵Cys Val Gly Ala ²³⁰Asn Tyr Thr Trp Leu ²³⁵Leu Val Glu Gly Val Tyr ²⁴⁰
 Leu His Ser Leu ²⁴⁵Leu Val Leu Val Gly ²⁵⁰Gly Ser Glu Glu Gly His ²⁵⁵Phe
 Arg Tyr Tyr ²⁶⁰Leu Leu Leu Gly Trp ²⁶⁵Gly Ala Pro Ala Leu ²⁷⁰Phe Val Ile
 Pro Trp ²⁷⁵Val Ile Val Arg Tyr ²⁸⁰Leu Tyr Glu Asn Thr ²⁸⁵Gln Cys Trp Glu

4358741_1

Arg Asn Glu Val Lys Ala Ile Trp Trp Ile Ile Arg Thr Pro Ile Leu
 290 295 300

Met Thr Ile Leu Ile Asn Phe Leu Ile Phe Ile Arg Ile Leu Gly Ile
 305 310 315 320

Leu Leu Ser Lys Leu Arg Thr Arg Gln Met Arg Cys Arg Asp Tyr Arg
 325 330 335

Leu Arg Leu Ala Arg Ser Thr Leu Thr Leu Val Pro Leu Leu Gly Val
 340 345 350

His Glu Val Val Phe Ala Pro Val Thr Glu Glu Gln Ala Arg Gly Ala
 355 360 365

Leu Arg Phe Ala Lys Leu Gly Phe Glu Ile Phe Leu Ser Ser Phe Gln
 370 375 380

Gly Phe Leu Val Ser Val Leu Tyr Cys Phe Ile Asn Lys Glu Val Gly
 385 390 395 400

Arg Asp Pro Ala Ala Ala Pro Ala Leu Trp Arg Arg Arg Gly Thr Ala
 405 410 415

Pro Pro Leu Ser Ala Ile Val Ser Gln Val Gln Ser Glu Ile Arg Arg
 420 425 430

Gly Trp His His Cys Arg Leu Arg Arg Ser Leu Gly Glu Glu Gln Arg
 435 440 445

Gln Leu Pro Glu Arg Ala Phe Arg Ala Leu Pro Ser Gly Ser Gly Pro
 450 455 460

Gly Glu Val Pro Thr Ser Arg Gly Leu Ser Ser Gly Thr Leu Pro Gly
 465 470 475 480

Pro Gly Asn Glu Ala Ser Arg Glu Leu Glu Ser Tyr Cys
 485 490

<210> 3146

<211> 1482

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 3146

atgaccacca gcccgattct gcagctgctg ctgcgcctga gcctgtgcgg cctgctgctg 60

cagcgcgcgg aaaccggcag caaaggccag accgcgggag aactgtatca gcgctgggaa 120

cgctatcgcc gcgaatgcca ggaaaccctg gcggcggcgg aaccgccgag cggcctggcg 180

4358741_1

tgcaacggca gctttgatat gtatgtgtgc tgggattatg cggcgccgaa cgcgaccgcg	240
cgcgcgagct gcccgtggta tctgccgtgg catcatcatg tggcggcggg ctttgtgctg	300
cgccagtgcg gcagcgatgg ccagtggggc ctgtggcgcg atcataccca gtgcgaaaac	360
ccggaaaaaa acgaagcgtt tctggatcag cgcctgattc tggaacgcct gcaggtgatg	420
tataccgtgg gctatagcct gagcctggcg accctgctgc tggcgctgct gattctgagc	480
ctgtttcgcc gcctgcattg caccgcgaac tatattcata ttaacctgtt taccagcttt	540
atgctgcgcg cggcggcgat tctgagccgc gatcgctgc tgccgcgccc gggcccgtat	600
ctgggcgatc aggcgctggc gctgtggaac caggcgctgg cggcgtgccg caccgcgcag	660
attgtgacct agtattgcgt gggcgcgaaac tatacctggc tgctggtgga aggcgtgtat	720
ctgcatagcc tgctggtgct ggtgggcggc agcgaagaag gccattttcg ctattatctg	780
ctgctgggct ggggcgcgcc ggcgctgttt gtgattccgt ggggtgattgt gcgctatctg	840
tatgaaaaca ccagtgctg ggaacgcaac gaagtgaag cgatttggtg gattattcgc	900
accccgattc tgatgaccat tctgattaac tttctgattt ttattcgcat tctgggcatt	960
ctgctgagca aactgcgcac ccgccagatg cgctgccgcg attatcgctt gcgcctggcg	1020
cgcagcacc tgaccctggt gccgctgctg ggcgtgcatg aagtgggtgt tgcgccggtg	1080
accgaagaac aggcgcgcgg cgcgctgcgc tttgcgaaac tgggctttga aatttttctg	1140
agcagctttc agggctttct ggtgagcgtg ctgtattgct ttattaacaa agaagtgggc	1200
cgcgatccgg cggcggcgcc ggcgctgtgg cgccgccgcg gcaccgcgcc gccgctgagc	1260
gcgattgtga gccaggtgca gagcgaaatt cgccgcggct ggcatcattg ccgcctgcgc	1320
cgcagcctgg gcgaagaaca gcgccagctg ccggaacgcg cgtttcgcgc gctgccgagc	1380
ggcagcggcc cgggcgaagt gccgaccagc cgcggcctga gcagcggcac cctgccgggc	1440
ccgggcaacg aagcgagccg cgaactggaa agctattgct aa	1482

<210> 3147
 <211> 460
 <212> PRT
 <213> Mus musculus

<400> 3147
 Met Pro Leu Arg Leu Leu Leu Leu Leu Leu Trp Leu Trp Gly Leu Gln
 1 5 10 15

Trp Ala Glu Thr Asp Ser Glu Gly Gln Thr Thr Thr Gly Glu Leu Tyr
 20 25 30

Gln Arg Trp Glu His Tyr Gly Gln Glu Cys Gln Lys Met Leu Glu Thr
 35 40 45

Thr Glu Pro Pro Ser Gly Leu Ala Cys Asn Gly Ser Phe Asp Met Tyr
 50 55 60

Ala Cys Trp Asn Tyr Thr Ala Ala Asn Thr Thr Ala Arg Val Ser Cys
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65				70				4358741_1				75				80			
Pro	Trp	Tyr	Leu	Pro	Trp	Phe	Arg	Gln	Val	Ser	Ala	Gly	Phe	Val	Phe				
				85					90					95					
Arg	Gln	Cys	Gly	Ser	Asp	Gly	Gln	Trp	Gly	Ser	Trp	Arg	Asp	His	Thr				
			100					105					110						
Gln	Cys	Glu	Asn	Pro	Glu	Lys	Asn	Gly	Ala	Phe	Gln	Asp	Gln	Thr	Leu				
		115					120					125							
Ile	Leu	Glu	Arg	Leu	Gln	Ile	Met	Tyr	Thr	Val	Gly	Tyr	Ser	Leu	Ser				
	130					135					140								
Leu	Thr	Thr	Leu	Leu	Leu	Ala	Leu	Leu	Ile	Leu	Ser	Leu	Phe	Arg	Arg				
145					150					155					160				
Leu	His	Cys	Thr	Arg	Asn	Tyr	Ile	His	Met	Asn	Leu	Phe	Thr	Ser	Phe				
				165					170					175					
Met	Leu	Arg	Ala	Ala	Ala	Ile	Leu	Thr	Arg	Asp	Gln	Leu	Leu	Pro	Pro				
			180					185					190						
Leu	Gly	Pro	Tyr	Thr	Gly	Asp	Gln	Ala	Pro	Thr	Pro	Trp	Asn	Gln	Ala				
		195					200					205							
Leu	Ala	Ala	Cys	Arg	Thr	Ala	Gln	Ile	Met	Thr	Gln	Tyr	Cys	Val	Gly				
	210					215					220								
Ala	Asn	Tyr	Thr	Trp	Leu	Leu	Val	Glu	Gly	Val	Tyr	Leu	His	His	Leu				
225					230					235					240				
Leu	Val	Ile	Val	Gly	Arg	Ser	Glu	Lys	Gly	His	Phe	Arg	Cys	Tyr	Leu				
				245					250					255					
Leu	Leu	Gly	Trp	Gly	Ala	Pro	Ala	Leu	Phe	Val	Ile	Pro	Trp	Val	Ile				
			260					265					270						
Val	Arg	Tyr	Leu	Arg	Glu	Asn	Thr	Gln	Cys	Trp	Glu	Arg	Asn	Glu	Val				
		275					280					285							
Lys	Ala	Ile	Trp	Trp	Ile	Ile	Arg	Thr	Pro	Ile	Leu	Ile	Thr	Ile	Leu				
	290					295					300								
Ile	Asn	Phe	Leu	Ile	Phe	Ile	Arg	Ile	Leu	Gly	Ile	Leu	Val	Ser	Lys				
305					310					315					320				
Leu	Arg	Thr	Arg	Gln	Met	Arg	Cys	Pro	Asp	Tyr	Arg	Leu	Arg	Leu	Ala				
				325					330					335					
Arg	Ser	Thr	Leu	Thr	Leu	Val	Pro	Leu	Leu	Gly	Val	His	Glu	Val	Val				
Page 1345																			

340

345

350

Phe Ala Pro Val Thr Glu Glu Gln Val Glu Gly Ser Leu Arg Phe Ala
 355 360 365

Lys Leu Ala Phe Glu Ile Phe Leu Ser Ser Phe Gln Gly Phe Leu Val
 370 375 380

Ser Val Leu Tyr Cys Phe Ile Asn Lys Glu Val Gln Ser Glu Ile Arg
 385 390 395 400

Gln Gly Trp Arg His Arg Arg Leu Arg Leu Ser Leu Gln Glu Gln Arg
 405 410 415

Pro Arg Pro His Gln Glu Leu Ala Pro Arg Ala Val Pro Leu Ser Ser
 420 425 430

Ala Cys Arg Glu Ala Ala Val Gly Asn Ala Leu Pro Ser Gly Met Leu
 435 440 445

His Val Pro Gly Asp Glu Val Leu Glu Ser Tyr Cys
 450 455 460

<210> 3148
 <211> 1383
 <212> DNA
 <213> Mus musculus

<400> 3148
 atgccgctgc gcctgctgct gctgctgctg tggctgtggg gcctgcagtg ggcggaacc 60
 gatagcgaag gccagaccac caccggcgaa ctgtatcagc gctgggaaca ttatggccag 120
 gaatgccaga aaatgctgga aaccaccgaa ccgccgagcg gcctggcgtg caacggcagc 180
 tttgatatgt atgcgtgctg gaactatacc gcggcgaaca ccaccgcgcg cgtgagctgc 240
 ccgtggtatc tgccgtggtt tcgccaggtg agcgcgggct ttgtgtttcg ccagtgcggc 300
 agcgatggcc agtggggcag ctggcgcgat catacccagt gcgaaaacc ggaaaaaac 360
 ggcgcgtttc aggatcagac cctgattctg gaacgcctgc agattatgta taccgtgggc 420
 tatagcctga gcctgaccac cctgctgctg gcgctgctga ttctgagcct gtttcgccgc 480
 ctgcattgca cccgcaacta tattcatatg aacctgttta ccagctttat gctgcgcgcg 540
 gcggcgattc tgaccgcga tcagctgctg ccgccgctgg gcccgatac cggcgatcag 600
 gcgccgacc cgtggaacca ggcgctggcg gcgtgccgca ccgcgcagat tatgaccag 660
 tattgctgg gcgcgaacta tacctggctg ctggtggaag gcgtgtatct gcatcatctg 720
 ctggtgattg tgggccgcag cgaaaaaggc cattttcgct gctatctgct gctgggctgg 780
 ggcgcgccgg cgctgtttgt gattccgtgg gtgattgtgc gctatctgcg cgaaaacacc 840
 cagtgtggg aacgcaacga agtgaaagcg atttggtgga ttattcgac cccgattctg 900
 attaccattc tgattaactt tctgattttt attcgcatc tgggcattct ggtgagcaaa 960

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ctgcgacccc gccagatgcg ctgcccggat tatcgctgc gcctggcgcg cagcaccctg      1020
accctgggtgc cgctgctggg cgtgcatgaa gtgggtgtttg cgccggtgac cgaagaacag      1080
gtggaaggca gcctgcgctt tgcgaaactg gcgtttgaaa tttttctgag cagctttcag      1140
ggctttctgg tgagcgtgct gtattgcttt attaacaaag aagtgcagag cgaaattcgc      1200
cagggctggc gccatcgccg cctgcgcctg agcctgcagg aacagcgccc gcgcccgcac      1260
caggaactgg cgccgcgcgc ggtgccgctg agcagcgcggt gccgcgaagc ggcggtgggc      1320
aacgcgctgc cgagcggcat gctgcatgtg ccgggcgatg aagtgctgga aagctattgc      1380
taa                                                                    1383

```

<210> 3149

<211> 230

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3149

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Met Pro Leu Arg Leu Leu Leu Leu Leu Trp Leu Trp Gly Leu Gln
1          5          10          15

```

```

Trp Ala Glu Thr Asp Ser Glu Gly Gln Thr Thr Thr Gly Glu Leu Tyr
          20          25          30

```

```

Gln Arg Trp Glu His Tyr Gly Gln Glu Cys Gln Lys Met Leu Glu Thr
          35          40          45

```

```

Thr Glu Pro Pro Ser Gly Leu Ala Cys Asn Gly Ser Phe Asp Met Tyr
50          55          60

```

```

Ala Cys Trp Asn Tyr Thr Ala Ala Asn Thr Thr Ala Arg Val Ser Cys
65          70          75          80

```

```

Pro Trp Tyr Leu Pro Trp Phe Arg Gln Val Ser Ala Gly Phe Val Phe
          85          90          95

```

```

Arg Gln Cys Gly Ser Asp Gly Gln Trp Gly Ser Trp Arg Asp His Thr
100          105          110

```

```

Gln Cys Glu Asn Pro Glu Lys Asn Gly Ala Phe Gln Asp Gln Thr Leu
115          120          125

```

```

Ile Leu Glu Arg Leu Gln Ile Met Tyr Thr Val Gly Tyr Ser Leu Ser
130          135          140

```

```

Leu Thr Thr Leu Leu Leu Ala Leu Leu Ile Leu Ser Leu Phe Arg Arg
145          150          155          160

```

4358741_1

Leu His Cys Thr Arg Asn Tyr Ile His Met Asn Leu Phe Thr Ser Phe
 165 170 175

Met Leu Arg Ala Ala Ala Ile Leu Thr Arg Asp Gln Leu Leu Pro Pro
 180 185 190

Leu Gly Pro Tyr Thr Gly Asp Gln Ala Pro Thr Pro Trp Asn Gln Val
 195 200 205

Leu His Arg Leu Leu Pro Gly Gly Thr Lys Thr Phe Pro Ile Tyr Phe
 210 215 220

Arg Thr Phe Pro His His
 225 230

<210> 3150

<211> 693

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 3150

atgccgctgc gcctgctgct gctgctgctg tggctgtggg gcctgcagtg ggcggaaacc	60
gatagcgaag gccagaccac caccggcgaa ctgtatcagc gctgggaaca ttatggccag	120
gaatgccaga aaatgctgga aaccaccgaa ccgccgagcg gcctggcgtg caacggcagc	180
tttgatatgt atgcgtgctg gaactatacc gcggcgaaca ccaccgcgcg cgtgagctgc	240
ccgtgggtatc tgccgtgggt tccgaggtg agcgcgggct ttgtgtttcg ccagtgcggc	300
agcgatggcc agtggggcag ctggcgcgat catacccagt gcgaaaacc ggaaaaaac	360
ggcgcgtttc aggatcagac cctgattctg gaacgcctgc agattatgta taccgtgggc	420
tatagcctga gcctgaccac cctgctgctg gcgctgctga ttctgagcct gtttcgccgc	480
ctgcattgca cccgcaacta tattcatatg aacctgttta ccagctttat gctgcgcgcg	540
gcggcgattc tgaccgcga tcagctgctg ccgccgctgg gcccgatac cggcgatcag	600
gcgccgaccc cgtggaacca ggtgctgcat cgcctgctgc cgggcggcac caaaccttt	660
ccgatttatt ttgcacctt tccgcatcat taa	693

<210> 3151

<211> 42

<212> PRT

<213> Homo sapiens

<400> 3151

Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
 1 5 10 15

Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
 20 25 30

4358741_1

Lys Asn Asp Trp Lys His Asn Ile Thr Gln
35 40

<210> 3152
<211> 126
<212> DNA
<213> Homo sapiens

<400> 3152
tatgcggaag gcacctttat tagcgattat agcattgcga tggataaaat tcatcagcag 60
gattttgtga actggctgct ggcgcagaaa ggcaaaaaaa acgattggaa acataacatt 120
acccag 126

<210> 3153
<211> 42
<212> PRT
<213> Mus musculus

<400> 3153
Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
1 5 10 15

Ile Arg Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Arg Gly Lys
20 25 30

Lys Ser Asp Trp Lys His Asn Ile Thr Gln
35 40

<210> 3154
<211> 126
<212> DNA
<213> Mus musculus

<400> 3154
tatgcggaag gcacctttat tagcgattat agcattgcga tggataaaat tcgccagcag 60
gattttgtga actggctgct ggcgcagcgc ggcaaaaaaa gcgattggaa acataacatt 120
acccag 126

<210> 3155
<211> 42
<212> PRT
<213> Rattus sp.

<400> 3155
Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
1 5 10 15

Ile Arg Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
20 25 30

Lys Asn Asp Trp Lys His Asn Leu Thr Gln
35 40

<210> 3156

4358741_1

<211> 126
<212> DNA
<213> Rattus sp.

<400> 3156
tatgcggaag gcacctttat tagcgattat agcattgcga tggataaaat tcgccagcag 60
gattttgtga actggctgct ggcgcagaaa ggcaaaaaaa acgattggaa acataacctg 120
acccag 126

<210> 3157
<211> 22
<212> PRT
<213> Homo sapiens

<400> 3157
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys
20

<210> 3158
<211> 66
<212> DNA
<213> Homo sapiens

<400> 3158
atggacatga gaggcctgc acagctgctg ggcctgctgc tgctgtggct gagaggcgcc 60
agatgc 66

<210> 3159
<211> 19
<212> PRT
<213> Homo sapiens

<400> 3159
Met Ala Trp Ala Leu Leu Leu Leu Thr Leu Leu Thr Gln Gly Thr Gly
1 5 10 15

Ser Trp Ala

<210> 3160
<211> 57
<212> DNA
<213> Homo sapiens

<400> 3160
atggcctggg ctctgctgct cctcaccctc ctactcagg gcacagggtc ctggggcc 57

<210> 3161
<211> 239
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

4358741_1

<400> 3161

Met Lys Leu Pro Val Arg Leu Leu Val Leu Met Phe Trp Ile Pro Ala
1 5 10 15Ser Ser Ser Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val
20 25 30Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
35 40 45Val His Ser Asn Gly Asp Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro
50 55 60Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
65 70 75 80Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
85 90 95Leu Lys Ile Ser Arg Val Glu Ala Ala Asp Leu Gly Val Tyr Phe Cys
100 105 110Ser Gln Ser Thr His Val Pro Pro Phe Thr Phe Gly Gly Gly Thr Lys
115 120 125Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro
130 135 140Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe
145 150 155 160Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp
165 170 175Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp
180 185 190Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys
195 200 205Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys
210 215 220Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
225 230 235

<210> 3162

<211> 462

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3162

```

Met Gly Trp Ser Tyr Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Asp
1      5      10      15

Val His Ser Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Lys
      20      25      30

Pro Gly Ala Ser Val Lys Leu Ser Cys Arg Ala Ser Gly Tyr Thr Phe
      35      40      45

Thr Ser Asn Trp Met His Trp Val Lys Gln Arg Pro Arg Gln Gly Leu
      50      55      60

Glu Trp Ile Gly Glu Ile Asn Pro Ser Asn Gly Arg Ser Asn Tyr Asn
65      70      75      80

Glu Lys Phe Lys Thr Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
      85      90      95

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
      100      105      110

Tyr Tyr Cys Ala Arg Phe Tyr Tyr Gly Thr Ser Trp Phe Ala Tyr Trp
      115      120      125

Gly Gln Gly Thr Leu Val Ala Val Ser Ala Ala Lys Thr Thr Pro Pro
      130      135      140

Ser Val Tyr Pro Leu Ala Pro Gly Ser Ala Ala Gln Thr Asn Ser Met
145      150      155      160

Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val Thr
      165      170      175

Val Thr Trp Asn Ser Gly Ser Leu Ser Ser Gly Val His Thr Phe Pro
      180      185      190

Ala Val Leu Gln Ser Asp Leu Tyr Thr Leu Ser Ser Ser Val Thr Val
      195      200      205

Pro Ser Ser Thr Trp Pro Ser Glu Thr Val Thr Cys Asn Val Ala His
      210      215      220

Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asp Cys
225      230      235      240

Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu Val Ser Ser Val Phe
      245      250      255

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4358741_1

Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr Leu Thr Pro
260 265 270

Lys Val Thr Cys Val Val Val Asp Ile Ser Lys Asp Asp Pro Glu Val
275 280 285

Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr Ala Gln Thr
290 295 300

Gln Pro Arg Glu Glu Gln Phe Ala Ser Thr Phe Arg Ser Val Ser Glu
305 310 315 320

Leu Pro Ile Met His Gln Asp Trp Leu Asn Gly Lys Glu Phe Lys Cys
325 330 335

Arg Val Asn Ser Ala Ala Phe Pro Ala Pro Ile Glu Lys Thr Ile Ser
340 345 350

Lys Thr Lys Gly Arg Pro Lys Ala Pro Gln Val Tyr Thr Ile Pro Pro
355 360 365

Pro Lys Glu Gln Met Ala Lys Asp Lys Val Ser Leu Thr Cys Met Ile
370 375 380

Thr Asp Phe Phe Pro Glu Asp Ile Thr Val Glu Trp Gln Trp Asn Gly
385 390 395 400

Gln Pro Ala Glu Asn Tyr Lys Asn Thr Gln Pro Ile Met Asp Thr Asp
405 410 415

Gly Ser Tyr Phe Val Tyr Ser Lys Leu Asn Val Gln Lys Ser Asn Trp
420 425 430

Glu Ala Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu Gly Leu His
435 440 445

Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly Lys
450 455 460

<210> 3163

<211> 39

<212> PRT

<213> Heloderma suspectum

<400> 3163

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

4358741_1

<210> 3164
 <211> 39
 <212> PRT
 <213> Heloderma horridum

<400> 3164
 His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3165
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<400> 3165
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3166
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<400> 3166
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3167
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<400> 3167
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3168
<211> 30
<212> PRT
<213> Heloderma suspectum

<400> 3168
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
20 25 30

<210> 3169
<211> 30
<212> PRT
<213> Heloderma suspectum

<400> 3169
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly
20 25 30

<210> 3170
<211> 30
<212> PRT
<213> Heloderma suspectum

<400> 3170
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly
20 25 30

<210> 3171
<211> 30
<212> PRT
<213> Heloderma suspectum

<400> 3171
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly
20 25 30

<210> 3172
<211> 28
<212> PRT
<213> Heloderma suspectum

<400> 3172

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His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 3173
 <211> 28
 <212> PRT
 <213> Heloderma suspectum

<400> 3173
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn
 20 25

<210> 3174
 <211> 28
 <212> PRT
 <213> Heloderma suspectum

<400> 3174
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 3175
 <211> 28
 <212> PRT
 <213> Heloderma suspectum

<400> 3175
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn
 20 25

<210> 3176
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<400> 3176
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Lys Ala Ala Lys Glu Phe Ile Glu Phe Leu Lys Gln Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

4358741_1

<210> 3177
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<400> 3177
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Lys Ala Ala Lys Glu Phe Ile Glu Trp Leu Lys Gln Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3178
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<220>
 <221> MOD_RES
 <222> (14)..(14)
 <223> OctylGly

<400> 3178
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Gly Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Gln Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3179
 <211> 39
 <212> PRT
 <213> Heloderma suspectum

<220>
 <221> MOD_RES
 <222> (34)..(34)
 <223> OctylGly

<400> 3179
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Gln Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3180
 <211> 37

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<212> PRT

<213> Heloderma suspectum

<400> 3180

His Gly Glu Phe Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Gln Gly Gly Pro Ser
 20 25 30

Lys Glu Ile Ile Ser
 35

<210> 3181

<211> 39

<212> PRT

<213> Heloderma suspectum

<400> 3181

His Gly Glu Phe Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu
 1 5 10 15

Lys Ala Ala Lys Glu Phe Ile Glu Trp Leu Lys Gln Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3182

<211> 39

<212> PRT

<213> Heloderma suspectum

<400> 3182

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Val Lys Ile Leu Glu Ala
 1 5 10 15

Glu Ala Val Arg Lys Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 3183

<211> 40

<212> PRT

<213> Heloderma suspectum

<400> 3183

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

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<210> 3184
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 3184
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 3185
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3185
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 3186
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> Aib

<220>
 <221> MOD_RES
 <222> (29)..(29)
 <223> Aib

<400> 3186
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Arg Glu Phe Ile Ala Phe Leu Val Arg Xaa Arg
 20 25 30

<210> 3187
 <211> 31
 <212> PRT
 <213> Artificial Sequence

4358741_1

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> Ala, Val or Gly

<220>
 <221> MOD_RES
 <222> (16)..(16)
 <223> Gly, Lys or Glu

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Gln or Lys

<220>
 <221> MOD_RES
 <222> (24)..(24)
 <223> Ala or Glu

<220>
 <221> MOD_RES
 <222> (27)..(27)
 <223> Val or Lys

<220>
 <221> MOD_RES
 <222> (28)..(28)
 <223> Lys, Asn or Arg

<220>
 <221> MOD_RES
 <222> (30)..(30)
 <223> Arg or Gly

<220>
 <221> MOD_RES
 <222> (31)..(31)
 <223> Gly, His, Pro or not present

<400> 3187
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
 1 5 10 15

Xaa Ala Ala Lys Glu Phe Ile Xaa Trp Leu Xaa Xaa Gly Xaa Xaa
 20 25 30

<210> 3188
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3188
 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

4358741_1

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Gly
20 25 30

<210> 3189
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3189
His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Glu Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 3190
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3190
His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Lys
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 3191
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3191
His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly Gly
20 25 30

<210> 3192
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3192

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His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly Gly
 20 25 30

<210> 3193
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 3193
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Lys Asn Gly Gly Gly
 20 25 30

<210> 3194
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 3194
 His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Lys Asn Gly Gly Gly
 20 25 30

<210> 3195
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 3195
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly Pro
 20 25 30

<210> 3196
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>

4358741_1

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3196

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly Pro
20 25 30

<210> 3197

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3197

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Lys Asn Gly Gly Pro
20 25 30

<210> 3198

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3198

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Lys Asn Gly Gly Pro
20 25 30

<210> 3199

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3199

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly
20 25 30

<210> 3200

<211> 30

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<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3200
 His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly
 20 25 30

<210> 3201
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3201
 His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Asn Gly Gly
 20 25 30

<210> 3202
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3202
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Asn Gly Gly
 20 25 30

<210> 3203
 <211> 230
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<220>
 <221> MOD_RES
 <222> (16)..(16)
 <223> Pro or Glu

<220>

<221> MOD_RES
 <222> (17)..(17)
 <223> Phe, Val or Ala

<220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> Leu, Glu or Ala

<220>
 <221> MOD_RES
 <222> (80)..(80)
 <223> Asn or Ala

<220>
 <221> MISC_FEATURE
 <222> (230)..(230)
 <223> May or may not be present

<400> 3203
 Ala Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Xaa
 1 5 10 15

Xaa Xaa Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 20 25 30

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 35 40 45

Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
 50 55 60

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Xaa
 65 70 75 80

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 85 90 95

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
 100 105 110

Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 115 120 125

Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn
 130 135 140

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 145 150 155 160

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 165 170 175

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg
 180 185 190

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Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys
 195 200 205

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 210 215 220

Ser Leu Ser Leu Gly Lys
 225 230

<210> 3204
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <222> (1)..(30)
 <223> This sequence may encompass 1-6 "Gly Gly Gly Gly Ser" repeating units wherein some positions may be absent

<220>
 <223> See specification as filed for detailed description of substitutions and preferred embodiments

<400> 3204
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 20 25 30

<210> 3205
 <211> 275
 <212> PRT
 <213> Homo sapiens

<400> 3205
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Gly Gly Gly
 20 25 30

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Glu
 35 40 45

Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala
 50 55 60

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 65 70 75 80

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
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Gln Glu Asp Pro₁₀₀ Glu Val Gln Phe Asn₁₀₅ Trp Tyr Val Asp Gly₁₁₀ Val Glu
 Val His Asn₁₁₅ Ala Lys Thr Lys Pro₁₂₀ Arg Glu Glu Gln Phe₁₂₅ Asn Ser Thr
 Tyr Arg₁₃₀ Val Val Ser Val Leu₁₃₅ Thr Val Leu His Gln₁₄₀ Asp Trp Leu Asn
 Gly₁₄₅ Lys Glu Tyr Lys Cys₁₅₀ Lys Val Ser Asn Lys₁₅₅ Gly Leu Pro Ser Ser₁₆₀
 Ile Glu Lys Thr Ile₁₆₅ Ser Lys Ala Lys Gly₁₇₀ Gln Pro Arg Glu Pro₁₇₅ Gln
 Val Tyr Thr Leu₁₈₀ Pro Pro Ser Gln Glu₁₈₅ Glu Met Thr Lys Asn₁₉₀ Gln Val
 Ser Leu Thr₁₉₅ Cys Leu Val Lys Gly₂₀₀ Phe Tyr Pro Ser Asp₂₀₅ Ile Ala Val
 Glu Trp₂₁₀ Glu Ser Asn Gly Gln₂₁₅ Pro Glu Asn Asn Tyr₂₂₀ Lys Thr Thr Pro
 Pro Val₂₂₅ Leu Asp Ser Asp₂₃₀ Gly Ser Phe Phe Leu₂₃₅ Tyr Ser Arg Leu Thr₂₄₀
 Val Asp Lys Ser Arg₂₄₅ Trp Gln Glu Gly Asn₂₅₀ Val Phe Ser Cys Ser₂₅₅ Val
 Met His Glu Ala₂₆₀ Leu His Asn His Tyr₂₆₅ Thr Gln Lys Ser Leu₂₇₀ Ser Leu
 Ser Leu Gly₂₇₅

<210> 3206

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<220>

<221> MOD_RES

<222> (2)..(2)

<223> D-Ala, Gly, Val, Leu, Ile, Ser or Thr

<220>

<221> MOD_RES

<222> (16)..(16)

<223> Gly, Glu, Asp or Lys

<220>

<221> MOD_RES

<222> (27)..(27)

<223> Val or Ile

<220>

<223> See specification as filed for detailed description of substitutions and preferred embodiments

<400> 3206

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Cys Cys
35 40

<210> 3207

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<220>

<223> See specification as filed for detailed description of substitutions and preferred embodiments

<400> 3207

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Ile Lys Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Cys Cys
35 40

<210> 3208

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3208

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Lys Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

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Ser Gly Ala Pro Pro Pro Ser
35

<210> 3209
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3209
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Lys
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3210
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3210
Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu
1 5 10 15

Ala Val Lys Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser Ser
20 25 30

Gly Ala Pro Pro Pro Ser
35

<210> 3211
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<220>
<221> MOD_RES
<222> (14)..(14)
<223> NorLeu

<400> 3211
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Arg Gln Xaa Glu Glu
1 5 10 15

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Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Arg Asn Gly Gly Pro Lys
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3212
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3212
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Lys Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3213
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3213
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Lys Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3214
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3214
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Lys Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
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20

25

30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3215
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3215
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Lys Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 3216
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3216
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 3217
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3217
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

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Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 3218
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3218
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 3219
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3219
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 3220
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3220
His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys

35

40

<210> 3221
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 3221
 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
 1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 3222
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 3222
 Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln
 1 5 10 15

Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 3223
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 polypeptide

<400> 3223
 Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly Gln
 1 5 10 15

Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 3224
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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polypeptide

<400> 3224

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Gly Lys
20 25 30

<210> 3225

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 3225

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
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Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Gly Lys
20 25 30