

## SEQUENCE LISTING

<110> Biorealities S.A.S.

<120> PROGASTRIN AND LIVER PATHOLOGIES

<130> N.112750

<150> 61/293,557

<151> 2010-01-08

<160> 106

<170> PatentIn version 3.5

<210> 1

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 1

Gly Tyr Ile Phe Thr Ser Tyr Trp  
1 5

<210> 2

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 2

Phe Tyr Pro Gly Asn Ser Asp Ser  
1 5

<210> 3

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 3

Thr Arg Arg Asp Ser Pro Gln Tyr  
1 5

<210> 4

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 4  
 Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr  
 1 5 10

<210> 5  
 <211> 3  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 5  
 Lys Val Ser  
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<210> 6  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 6  
 Phe Gln Gly Ser His Val Pro Phe Thr  
 1 5

<210> 7  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 7  
 Gly Tyr Thr Phe Ser Ser Ser Trp  
 1 5

<210> 8  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 8  
 Phe Leu Pro Gly Ser Gly Ser Thr  
 1 5

<210> 9  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

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

## peptide

&lt;400&gt; 9

Ala Thr Asp Gly Asn Tyr Asp Trp Phe Ala Tyr  
 1 5 10

&lt;210&gt; 10

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
 peptide

&lt;400&gt; 10

Gln Ser Leu Val His Ser Ser Gly Val Thr Tyr  
 1 5 10

&lt;210&gt; 11

&lt;211&gt; 9

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
 peptide

&lt;400&gt; 11

Ser Gln Ser Thr His Val Pro Pro Thr  
 1 5

&lt;210&gt; 12

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
 polypeptide

&lt;400&gt; 12

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

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

Trp Val His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45

Gly Gly Phe Tyr Pro Gly Asn Ser Asp Ser Arg Tyr Asn Gln Lys Phe  
 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Val Thr Ser Ala Ser Thr Ala Tyr  
 65 70 75 80

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

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

Val Ser Ser  
 115

<210> 13  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 13  
 Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly  
 1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser  
 20 25 30

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

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro  
 50 55 60

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

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

Ser His Val Pro Phe Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

<210> 14  
 <211> 118  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 14  
 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Met Lys Pro Gly Ala  
 1 5 10 15

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

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

Gly Glu Phe Leu Pro Gly Ser Gly Ser Thr Asp Tyr Asn Glu Lys Phe  
 50 55 60

Lys Gly Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Asp Thr Ala Tyr  
 65 70 75 80

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

Ala Thr Asp Gly Asn Tyr Asp Trp Phe Ala Tyr Trp Gly Gln Gly Thr  
 100 105 110

Leu Val Thr Val Ser Ala  
 115

<210> 15  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

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

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser  
 20 25 30

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

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro  
 50 55 60

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

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

Thr His Val Pro Pro Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

<210> 16  
 <211> 345  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(345)

<400> 16  
 gag gtt cag ctc cag cag tct ggg act gtg ctg gca agg cct ggg gct 48  
 Glu Val Gln Leu Gln Gln Ser Gly Thr Val Leu Ala Arg Pro Gly Ala  
 1 5 10 15  
 tcc gtg aag atg tcc tgc aag gct tct ggc tac atc ttt acc agc tac 96  
 Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Ile Phe Thr Ser Tyr  
 20 25 30  
 tgg gta cac tgg gtt aaa cag agg cct gga cag ggt cta gaa tgg att 144  
 Trp Val His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45  
 ggt ggt ttt tat cct gga aat agt gat tct agg tac aac cag aaa ttc 192  
 Gly Gly Phe Tyr Pro Gly Asn Ser Asp Ser Arg Tyr Asn Gln Lys Phe  
 50 55 60  
 aag ggc aag gcc aca ctg act gca gtc aca tcc gcc agt act gcc tac 240  
 Lys Gly Lys Ala Thr Leu Thr Ala Val Thr Ser Ala Ser Thr Ala Tyr  
 65 70 75 80  
 atg gac ctc agc agc ctg aca aat gag gac tct gcg gtc tat ttc tgt 288  
 Met Asp Leu Ser Ser Leu Thr Asn Glu Asp Ser Ala Val Tyr Phe Cys  
 85 90 95  
 aca aga aga gat agt ccc cag tac tgg ggc caa ggc acc act ctc aca 336  
 Thr Arg Arg Asp Ser Pro Gln Tyr Trp Gly Gln Gly Thr Thr Leu Thr  
 100 105 110  
 gtc tcc tca 345  
 Val Ser Ser  
 115

<210> 17  
 <211> 336  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(336)

<400> 17  
 gat gtt ttg atg acc caa act cca ctc tcc ctg cct gtc agt ctt gga 48  
 Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly  
 1 5 10 15  
 gat caa gcc tcc atc tct tgc aga tct agt cag agc att gta cat agt 96  
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser  
 20 25 30  
 aat gga aac acc tat tta gaa tgg tac ctg cag aaa cca ggc cag tct 144  
 Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
 35 40 45  
 cca aag ctc ctg atc tac aaa gtt tcc aac cga ttt tct ggg gtc cca 192  
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro

50	55	60	
gac agg ttc agt ggc agt gga tca ggg aca gat ttc aca ctc aag atc			240
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile			
65	70	75	80
agc aga ctg gag gct gag gat ctg gga gtt tat tac tgc ttt caa ggt			288
Ser Arg Leu Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly			
	85	90	95
tca cat gtt ccg ttc acg ttc gga ggg ggg acc aag ctg gaa ata aaa			336
Ser His Val Pro Phe Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys			
	100	105	110
<210> 18			
<211> 354			
<212> DNA			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: Synthetic polynucleotide			
<220>			
<221> CDS			
<222> (1)..(354)			
<400> 18			
cag gtt cag ttg cag cag tct gga gct gag ctg atg aag cca ggg gcc			48
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Met Lys Pro Gly Ala			
1	5	10	15
tca gtg aag ata tcc tgc aag gct act ggc tac aca ttc agt agc tcc			96
Ser Val Lys Ile Ser Cys Lys Ala Thr Gly Tyr Thr Phe Ser Ser Ser			
	20	25	30
tgg ata gag tgg tta aaa cag agg cct gga cat ggc ctt gag tgg att			144
Trp Ile Glu Trp Leu Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile			
	35	40	45
gga gag ttt tta cct gga agt ggt agt aca gac tac aat gag aag ttc			192
Gly Glu Phe Leu Pro Gly Ser Gly Ser Thr Asp Tyr Asn Glu Lys Phe			
	50	55	60
aag ggc aag gcc aca ttc act gca gac aca tcc tcc gac aca gcc tac			240
Lys Gly Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Asp Thr Ala Tyr			
65	70	75	80
atg cta ctc agc agc ctg aca tct gag gac tct gcc gtc tat tac tgt			288
Met Leu Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys			
	85	90	95
gca act gat ggt aat tat gac tgg ttt gct tac tgg ggc caa ggg act			336
Ala Thr Asp Gly Asn Tyr Asp Trp Phe Ala Tyr Trp Gly Gln Gly Thr			
	100	105	110
ctg gtc act gtc tct gca			354
Leu Val Thr Val Ser Ala			
	115		

<210> 19  
 <211> 336  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(336)

<400> 19  
 gat ctt gtg atg acc caa act cca ctc tcc ctg cct gtc agt ctt gga 48  
 Asp Leu Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly  
 1 5 10 15

gat caa gcc tcc atc tct tgc aga tct agt cag agc ctt gta cac agt 96  
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser  
 20 25 30

agt gga gtc acc tat tta cat tgg tac ctg cag aag cca ggc cag tct 144  
 Ser Gly Val Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
 35 40 45

cca aag ctc ctg atc tac aaa gtt tcc aac cga ttt tct ggg gtc cca 192  
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro  
 50 55 60

gac agg ttc agt ggc agt gga tca ggg aca gat ttc aca ctc aag atc 240  
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
 65 70 75 80

agc aga gtg gag gct gag gat ctg gga gtt tat ttc tgc tct caa agt 288  
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser  
 85 90 95

aca cat gtt cct ccc acg ttc ggc tgc ggg aca aag ttg gaa ata aaa 336  
 Thr His Val Pro Pro Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

<210> 20  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 20  
 Ser Trp Lys Pro Arg Ser Gln Gln Pro Asp Ala Pro Leu Gly Thr Gly  
 1 5 10 15

Ala Asn Arg Asp Leu Glu Leu Pro Trp Leu Glu Gln Gln Gly Pro Ala  
 20 25 30

Ser His His Arg Arg Gln Leu Gly Pro Gln Gly Pro Pro His Leu Val  
 35 40 45

Ala Asp Pro Ser Lys Lys Gln Gly Pro Trp Leu Glu Glu Glu Glu  
 50 55 60

Ala Tyr Gly Trp Met Asp Phe Gly Arg Arg Ser Ala Glu Asp Glu Asn  
 65 70 75 80

<210> 21  
 <211> 115  
 <212> PRT



<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 21

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 Ile Phe Thr Ser Tyr  
20 25 30

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

Gly Gly Phe Tyr Pro Gly Asn Ser Asp Ser Arg Tyr Ser Gln Lys Phe  
50 55 60

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

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

Thr Arg Arg Asp Ser Pro Gln Tyr Trp Gly Gln Gly Thr Leu Val Thr  
100 105 110

Val Ser Ser  
115

<210> 22

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 22

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

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser  
20 25 30

Asn Gly Asn Thr Tyr Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser  
35 40 45

Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro  
50 55 60

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

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

Ser His Val Pro Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys  
                     100                    105                    110

<210> 23

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
           polypeptide

<400> 23

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 Ser Ser Ser  
                     20                    25                    30

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

Gly Ile Phe Leu Pro Gly Ser Gly Ser Thr Asp Tyr Ala Gln Lys Phe  
                     50                    55                    60

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

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

Ala Thr Asp Gly Asn Tyr Asp Trp Phe Ala Tyr Trp Gly Gln Gly Thr  
                     100                    105                    110

Leu Val Thr Val Ser Ser  
                     115

<210> 24

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
           polypeptide

<400> 24

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

Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Val His Ser  
                     20                    25                    30

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

Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro  
           50                          55                          60

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

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

Thr His Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys  
                   100                          105                          110

<210> 25  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 25  
 Ser Trp Lys Pro Arg Ser Gln Gln Pro Asp Ala Pro Leu Gly  
 1                          5                          10

<210> 26  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

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

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> Xaa is modified residue Aminohexanoic acid

<400> 26  
 Ser Trp Lys Pro Arg Ser Gln Gln Pro Asp Ala Pro Leu Gly Xaa Cys  
 1                          5                          10                          15

<210> 27  
 <211> 26  
 <212> PRT  
 <213> Homo sapiens

<400> 27  
 Gln Gly Pro Trp Leu Glu Glu Glu Glu Ala Tyr Gly Trp Met Asp  
 1                          5                          10                          15

Phe Gly Arg Arg Ser Ala Glu Asp Glu Asn  
           20                          25

<210> 28  
 <211> 5  
 <212> PRT

<213> Homo sapiens

<400> 28

Asp Ala Pro Leu Gly  
1 5

<210> 29

<211> 6

<212> PRT

<213> Homo sapiens

<400> 29

Pro Asp Ala Pro Leu Gly  
1 5

<210> 30

<211> 7

<212> PRT

<213> Homo sapiens

<400> 30

Pro Arg Ser Gln Gln Pro Asp  
1 5

<210> 31

<211> 9

<212> PRT

<213> Homo sapiens

<400> 31

Trp Lys Pro Arg Ser Gln Gln Pro Asp  
1 5

<210> 32

<211> 13

<212> PRT

<213> Homo sapiens

<400> 32

Trp Lys Pro Arg Ser Gln Gln Pro Asp Ala Pro Leu Gly  
1 5 10

<210> 33

<211> 4

<212> PRT

<213> Homo sapiens

<400> 33

Phe Gly Arg Arg  
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<210> 34

<211> 5

<212> PRT

<213> Homo sapiens

<400> 34

Met Asp Phe Gly Arg  
1 5

<210> 35

<211> 5  
 <212> PRT  
 <213> Homo sapiens

<400> 35  
 Ala Glu Asp Glu Asn  
 1 5

<210> 36  
 <211> 8  
 <212> PRT  
 <213> Homo sapiens

<400> 36  
 Gly Trp Met Asp Phe Gly Arg Arg  
 1 5

<210> 37  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 37  
 Gly Phe Thr Phe Thr Thr Tyr Ala  
 1 5

<210> 38  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 38  
 Gly Phe Ile Phe Ser Ser Tyr Gly  
 1 5

<210> 39  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 39  
 Gly Tyr Thr Phe Thr Ser Tyr Tyr  
 1 5

<210> 40  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

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

## peptide

&lt;400&gt; 40

Gly Tyr Ser Ile Thr Ser Asp Tyr Ala  
1 5

&lt;210&gt; 41

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
peptide

&lt;400&gt; 41

Ile Ser Ser Gly Gly Thr Tyr Thr  
1 5

&lt;210&gt; 42

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
peptide

&lt;400&gt; 42

Ile Asn Thr Phe Gly Asp Arg Thr  
1 5

&lt;210&gt; 43

&lt;211&gt; 8

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
peptide

&lt;400&gt; 43

Ile Asn Pro Ser Asn Gly Gly Thr  
1 5

&lt;210&gt; 44

&lt;211&gt; 7

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
peptide

&lt;400&gt; 44

Ile Ser Phe Ser Gly Tyr Thr  
1 5

&lt;210&gt; 45

&lt;211&gt; 10

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

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

<400> 45  
 Ala Thr Gln Gly Asn Tyr Ser Leu Asp Phe  
 1 5 10

<210> 46  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 46  
 Ala Arg Gly Thr Gly Thr Tyr  
 1 5

<210> 47  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 47  
 Thr Arg Gly Gly Tyr Tyr Pro Phe Asp Tyr  
 1 5 10

<210> 48  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 48  
 Ala Arg Glu Val Asn Tyr Gly Asp Ser Tyr His Phe Asp Tyr  
 1 5 10

<210> 49  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 49  
 Lys Ser Leu Arg His Thr Lys Gly Ile Thr Phe  
 1 5 10

<210> 50  
 <211> 11  
 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 50

Gln Ser Leu Leu Asp Ser Asp Gly Lys Thr Tyr  
1 5 10

<210> 51

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 51

Ser Gln His Arg Thr Tyr Thr  
1 5

<210> 52

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 52

Gln Met Ser  
1

<210> 53

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 53

Leu Val Ser  
1

<210> 54

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 54

Val Lys Lys Asp Gly Ser His  
1 5

<210> 55



<211> 9  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 55  
 Ala Gln Asn Leu Glu Leu Pro Leu Thr  
 1 5

<210> 56  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 56  
 Trp Gln Gly Thr His Phe Pro Gln Thr  
 1 5

<210> 57  
 <211> 9  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 57  
 Trp Gln Gly Thr His Ser Pro Tyr Thr  
 1 5

<210> 58  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 58  
 Gly Val Gly Asp Ala Ile Lys Gly Gln Ser Val Phe Val  
 1 5 10

<210> 59  
 <211> 117  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 59  
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
 1 5 10 15

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

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

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

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

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

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

Leu Thr Val Ser Ser  
       115

<210> 60

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
           polypeptide

<400> 60

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser Ser Tyr  
                   20                  25                  30

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

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

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

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

Ala Arg Gly Thr Gly Thr Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val  
       100                  105                  110

Ser Ser

<210> 61  
 <211> 117  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 61  
 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
 20 25 30  
 Tyr Met Tyr Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45  
 Gly Glu Ile Asn Pro Ser Asn Gly Gly Thr Asn Phe Asn Glu Lys Phe  
 50 55 60  
 Lys Ser Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr  
 65 70 75 80  
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
 85 90 95  
 Thr Arg Gly Gly Tyr Tyr Pro Phe Asp Tyr Trp Gly Gln Gly Thr Thr  
 100 105 110  
 Leu Thr Val Ser Ser  
 115

<210> 62  
 <211> 121  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 62  
 Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln  
 1 5 10 15  
 Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Tyr Ser Ile Thr Ser Asp  
 20 25 30  
 Tyr Ala Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp  
 35 40 45  
 Met Gly Tyr Ile Ser Phe Ser Gly Tyr Thr Ser Tyr Asn Pro Ser Leu

50                      55                      60  
 Lys Ser Arg Ile Ser Val Thr Arg Asp Thr Ser Arg Asn Gln Phe Phe  
 65                      70                      75                      80  
 Leu Gln Leu Thr Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys  
                     85                      90                      95  
 Ala Arg Glu Val Asn Tyr Gly Asp Ser Tyr His Phe Asp Tyr Trp Gly  
                     100                      105                      110  
 Gln Gly Thr Ile Val Thr Val Ser Ser  
                     115                      120

<210> 63  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 63  
 Asp Ile Val Met Thr Gln Ala Ala Ser Ser Asn Pro Val Thr Leu Gly  
 1                      5                      10                      15

Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Arg His Thr  
                     20                      25                      30

Lys Gly Ile Thr Phe Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
                     35                      40                      45

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

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

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

Leu Glu Leu Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys  
                     100                      105                      110

<210> 64  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 64  
 Asp Val Val Leu Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly

<210>	66
<211>	115
<212>	PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 66

Gln Leu Ala Leu Thr Gln Ser Ser Ser Ala Ser Phe Ser Leu Gly Ala  
1 5 10 15

Ser Ala Lys Leu Thr Cys Thr Leu Ser Ser Gln His Arg Thr Tyr Thr  
20 25 30

Ile Glu Trp Tyr Gln Gln Gln Ser Leu Lys Pro Pro Lys Tyr Val Met  
35 40 45

Glu Val Lys Lys Asp Gly Ser His Ser Thr Gly His Gly Ile Pro Asp  
50 55 60

Arg Phe Ser Gly Ser Ser Ser Gly Ala Asp Arg Tyr Leu Ser Ile Ser  
65 70 75 80

Asn Ile Gln Pro Glu Asp Glu Ala Ile Tyr Ile Cys Gly Val Gly Asp  
85 90 95

Ala Ile Lys Gly Gln Ser Val Phe Val Phe Gly Gly Gly Thr Lys Val  
100 105 110

Thr Val Leu  
115

<210> 67

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<220>

<221> CDS

<222> (1)..(351)

<400> 67

gaa gtg cag ctg gtg gag tct ggg gga ggc tta gtg aag cct gga ggg 48  
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly  
1 5 10 15

tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc act ttc act acc tat 96  
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Thr Tyr  
20 25 30

gcc atg tct tgg gtt cgc cag act ccg gag aag agg ctg gag tgg gtc 144  
Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val  
35 40 45

gca acc att agt agt ggt ggt act tac acc tac tat cca gac agt gtg 192  
Ala Thr Ile Ser Ser Gly Gly Thr Tyr Thr Tyr Tyr Pro Asp Ser Val

50	55	60	
aag ggt cga ttc acc atc tcc aga gac aat gcc aag aac gcc cta tac			240
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ala Leu Tyr			
65	70	75	80
ctg caa atg agc agt ctg agg tct gag gac acg gcc atg tat tac tgt			288
Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys			
	85	90	95
gca aca cag ggg aat tac tct ttg gac ttc tgg ggc caa ggc acc tct			336
Ala Thr Gln Gly Asn Tyr Ser Leu Asp Phe Trp Gly Gln Gly Thr Ser			
	100	105	110
ctc aca gtc tcc tca			351
Leu Thr Val Ser Ser			
	115		

<210> 68  
 <211> 342  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(342)

<400> 68	
gag gtg cag ctg gtg gag tct ggg gga ggc ttg gtg cag cct gga ggg	48
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly	
1	5 10 15
tcc ctg aaa ctc tcc tgt gca gcc tct gga ttc att ttc agt agc tat	96
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser Ser Tyr	
	20 25 30
ggc atg tct tgg gtt cgc cag tct cca gac agg agg ctg gag ttg gtc	144
Gly Met Ser Trp Val Arg Gln Ser Pro Asp Arg Arg Leu Glu Leu Val	
	35 40 45
gca agt att aat act ttt ggt gat aga acc tat tat cca gac agt gtg	192
Ala Ser Ile Asn Thr Phe Gly Asp Arg Thr Tyr Tyr Pro Asp Ser Val	
	50 55 60
aag ggc cga ttc acc atc tcc aga gac aat gcc aag aac acc ctg tac	240
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr	
65	70 75 80
ctg caa atg acc agt ctg aag tct gag gac aca gcc att tat tac tgt	288
Leu Gln Met Thr Ser Leu Lys Ser Glu Asp Thr Ala Ile Tyr Tyr Cys	
	85 90 95
gca aga ggg acc gga acc tac tgg ggc caa ggc acc act ctc aca gtc	336
Ala Arg Gly Thr Gly Thr Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val	
	100 105 110
tcc tca	342
Ser Ser	

<210> 69

<211> 351  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(351)

<400> 69  
 cag gtc caa ctg cag cag tct ggg gct gaa ctg gtg aag cct ggg gct 48  
 Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala  
 1 5 10 15  
 tca gtg aag ttg tcc tgc aag gct tct ggc tac acc ttc acc agc tac 96  
 Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr  
 20 25 30  
 tat atg tac tgg gtg aag cag agg cct gga caa ggc ctt gag tgg att 144  
 Tyr Met Tyr Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile  
 35 40 45  
 gga gag att aat cct agc aat ggt ggt act aac ttc aat gag aag ttc 192  
 Gly Glu Ile Asn Pro Ser Asn Gly Gly Thr Asn Phe Asn Glu Lys Phe  
 50 55 60  
 aag agc aag gcc aca ctg act gta gac aaa tcc tcc agc aca gca tac 240  
 Lys Ser Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr  
 65 70 75 80  
 atg caa ctc agc agc ctg aca tct gag gac tct gcg gtc tat tac tgt 288  
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys  
 85 90 95  
 aca aga ggc ggt tac tac ccc ttt gac tac tgg ggc caa ggc acc act 336  
 Thr Arg Gly Gly Tyr Tyr Pro Phe Asp Tyr Trp Gly Gln Gly Thr Thr  
 100 105 110  
 ctc aca gtc tcc tca 351  
 Leu Thr Val Ser Ser  
 115

<210> 70  
 <211> 363  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(363)

<400> 70  
 gat gtg cag ctt cag gag tcg gga cct ggc ctg gtg aaa cct tct cag 48  
 Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln  
 1 5 10 15  
 tct ctg tcc ctc aca tgc act gtc act ggc tac tca atc acc agt gat 96  
 Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Tyr Ser Ile Thr Ser Asp



	20	25	30	
tat gcc tgg aat tgg atc cgg cag ttt cca gga aac aaa ctg gag tgg				144
Tyr Ala Trp Asn Trp Ile Arg Gln Phe Pro Gly Asn Lys Leu Glu Trp				
	35	40	45	
atg ggc tac ata agc ttc agt ggt tac act agt tac aac cca tct ctc				192
Met Gly Tyr Ile Ser Phe Ser Gly Tyr Thr Ser Tyr Asn Pro Ser Leu				
	50	55	60	
aaa agt cga atc tct gtc act cgg gac aca tcc agg aac caa ttc ttc				240
Lys Ser Arg Ile Ser Val Thr Arg Asp Thr Ser Arg Asn Gln Phe Phe				
	65	70	75	80
ctc cag ttg act tct gtg act act gag gac aca gcc aca tat tac tgt				288
Leu Gln Leu Thr Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys				
	85	90	95	
gca aga gag gtc aac tat ggg gac tcc tac cac ttt gac tac tgg ggc				336
Ala Arg Glu Val Asn Tyr Gly Asp Ser Tyr His Phe Asp Tyr Trp Gly				
	100	105	110	
caa ggc acc att gtc aca gtc tcc tca				363
Gln Gly Thr Ile Val Thr Val Ser Ser				
	115	120		
 <210> 71				
<211> 336				
<212> DNA				
<213> Artificial Sequence				
 <220>				
<223> Description of Artificial Sequence: Synthetic polynucleotide				
 <220>				
<221> CDS				
<222> (1)..(336)				
 <400> 71				
gac att gtg atg acg cag gct gca tcc tct aat cca gtc act ctt gga				48
Asp Ile Val Met Thr Gln Ala Ala Ser Ser Asn Pro Val Thr Leu Gly				
1	5	10	15	
aca tcc gct tcc atc tcc tgc agg tct agt aag agt ctc cga cat act				96
Thr Ser Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Arg His Thr				
	20	25	30	
aaa ggc atc act ttt ttg tat tgg tat ctg cag aag cca ggc cag tct				144
Lys Gly Ile Thr Phe Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser				
	35	40	45	
cct cag ctc ctg att tat cag atg tcc aac ctt gcc tca gga gtc cca				192
Pro Gln Leu Leu Ile Tyr Gln Met Ser Asn Leu Ala Ser Gly Val Pro				
	50	55	60	
gac agg ttc agt agc agt ggg tca gga act gat ttc aca ctg aga atc				240
Asp Arg Phe Ser Ser Ser Gly Ser Gly Thr Asp Phe Thr Leu Arg Ile				
	65	70	75	80
agc aga gtg gag gct gag gat ttg ggt gtt tat tac tgt gct caa aat				288
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Ala Gln Asn				
	85	90	95	
cta gaa ctt ccg ctc acg ttc ggt gct ggg acc aag ctg gag ctg aaa				336
Leu Glu Leu Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys				

100

105

110

<210> 72  
 <211> 336  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(336)

<400> 72  
 gat gtt gtg ctg acc cag act cca ctc act ttg tgc gtt acc att gga 48  
 Asp Val Val Leu Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly  
 1 5 10 15  
 caa cca gcc tcc atc tcc tgc aag tca agt cag agc ctc tta gat agt 96  
 Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser  
 20 25 30  
 gat gga aag aca tat ttg aat tgg ttg tta cag agg cca ggc cag tct 144  
 Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly Gln Ser  
 35 40 45  
 cca aag cgc cta atc tat ctg gtg tct aaa ctg gac tct gga gtc cct 192  
 Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro  
 50 55 60  
 gac agg ttc act ggc agt gga tca ggg aca gat ttc aca ctg aaa atc 240  
 Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
 65 70 75 80  
 agc aga gtg gag gct gag gat ttg gga gtt tat tat tgc tgg caa ggt 288  
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly  
 85 90 95  
 aca cat ttt cct cag acg ttc ggt gga ggc acc aag ctg gaa atc aaa 336  
 Thr His Phe Pro Gln Thr Phe Gly Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

<210> 73  
 <211> 336  
 <212> DNA  
 <213> Artificial Sequence

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

<220>  
 <221> CDS  
 <222> (1)..(336)

<400> 73  
 gat gtt gtg atg acc cag act cca ctc act ttg tgc gtt acc att ggg 48  
 Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly  
 1 5 10 15  
 cgc cca gcc tcc atc tct tgc aag tca agt cag agc ctc tta gac agt 96  
 Arg Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser

20	25	30	
gat gga aag aca tat ttg tat tgg ttg tta cag agg cca ggc cag tct			144
Asp Gly Lys Thr Tyr Leu Tyr Trp Leu Leu Gln Arg Pro Gly Gln Ser			
35	40	45	
cca aag cgc cta atc tat ctg gtg tct gag ctg gac tct gga gtc cct			192
Pro Lys Arg Leu Ile Tyr Leu Val Ser Glu Leu Asp Ser Gly Val Pro			
50	55	60	
gac agg atc act ggc agt ggg tcg ggg aca gat ttc aca ctg aag atc			240
Asp Arg Ile Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile			
65	70	75	80
agc aga gtg gag gct gag gat ttg gga gtt tat tat tgc tgg caa gga			288
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly			
85	90	95	
aca cat tct ccg tac acg ttc gga ggg ggg acc aag ctg gaa ata aaa			336
Thr His Ser Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys			
100	105	110	
<210> 74			
<211> 345			
<212> DNA			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: Synthetic polynucleotide			
<220>			
<221> CDS			
<222> (1)..(345)			
<400> 74			
caa ctt gcg ctc act cag tca tct tca gcc tct ttc tcc ctg gga gcc			48
Gln Leu Ala Leu Thr Gln Ser Ser Ser Ala Ser Phe Ser Leu Gly Ala			
1	5	10	15
tca gca aaa cta acg tgc act ttg agt agt caa cac aga acg tac acc			96
Ser Ala Lys Leu Thr Cys Thr Leu Ser Ser Gln His Arg Thr Tyr Thr			
20	25	30	
att gaa tgg tat cag caa cag tca ctc aag cct cct aag tat gtg atg			144
Ile Glu Trp Tyr Gln Gln Gln Ser Leu Lys Pro Pro Lys Tyr Val Met			
35	40	45	
gag gtt aag aaa gat gga agc cac agc aca ggt cat ggg att cct gat			192
Glu Val Lys Lys Asp Gly Ser His Ser Thr Gly His Gly Ile Pro Asp			
50	55	60	
cgc ttc tct gga tcc agt tct ggt gct gat cgc tac ctc agc att tcc			240
Arg Phe Ser Gly Ser Ser Ser Gly Ala Asp Arg Tyr Leu Ser Ile Ser			
65	70	75	80
aac atc cag cct gaa gat gaa gca ata tac atc tgt ggt gtg ggt gat			288
Asn Ile Gln Pro Glu Asp Glu Ala Ile Tyr Ile Cys Gly Val Gly Asp			
85	90	95	
gca att aag gga caa tct gtg ttt gtt ttc ggc ggt ggc acc aag gtc			336
Ala Ile Lys Gly Gln Ser Val Phe Val Phe Gly Gly Gly Thr Lys Val			
100	105	110	
act gtc cta			
Thr Val Leu			
345			

115

&lt;210&gt; 75

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic polypeptide

&lt;400&gt; 75

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

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

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

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

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

Val Thr Val Ser Ser  
 115

&lt;210&gt; 76

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Synthetic polypeptide

&lt;400&gt; 76

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Arg His Thr  
 20 25 30

Lys Gly Ile Thr Phe Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
 35 40 45

Pro Gln Leu Leu Ile Tyr Gln Met Ser Asn Arg Ala Ser Gly Val Pro

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50          55          60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65              70              75              80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ala Gln Asn
      85              90              95

Leu Glu Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
      100             105             110

<210> 77
<211> 117
<212> PRT
<213> Artificial Sequence

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

<400> 77
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1           5                10            15

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

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

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

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

Val Thr Val Ser Ser
      115

<210> 78
<211> 112
<212> PRT
<213> Artificial Sequence

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

<400> 78
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Glu

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1           5           10           15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Arg His Thr
      20           25           30

Lys Gly Ile Thr Phe Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
      35           40           45

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

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ala Gln Asn
      85           90           95

Leu Glu Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
      100          105          110

<210> 79
<211> 117
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

Val Thr Val Ser Ser
      115

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<210> 80  
 <211> 114  
 <212> PRT  
 <213> Artificial Sequence

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

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

<210> 81  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 81  
 Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly  
 1 5 10 15  
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser  
 20 25 30  
 Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser  
 35 40 45  
 Pro Arg Arg Leu Ile Tyr Leu Val Ser Asn Arg Asp Ser Gly Val Pro  
 50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Trp Gln Gly  
85 90 95

Thr His Phe Pro Gln Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys  
100 105 110

<210> 82  
<211> 114  
<212> PRT  
<213> Artificial Sequence

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

<400> 82  
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
1 5 10 15

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

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

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

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

Ser Ser

<210> 83  
<211> 112  
<212> PRT  
<213> Artificial Sequence

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

<400> 83  
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly  
1 5 10 15



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

Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser  
35 40 45

Pro Arg Arg Leu Ile Tyr Leu Val Ser Lys Arg Asp Ser Gly Val Pro  
50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Trp Gln Gly  
85 90 95

Thr His Phe Pro Gln Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys  
100 105 110

<210> 84

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
polypeptide

<400> 84

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 Ser Tyr  
20 25 30

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

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

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

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

Thr Arg Gly Gly Tyr Tyr Pro Phe Asp Tyr Trp Gly Gln Gly Thr Thr  
100 105 110

Val Thr Val Ser Ser  
115

<210> 85

<211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

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

<210> 86  
 <211> 117  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 86  
 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 Ser Tyr  
 20 25 30  
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met  
 35 40 45  
 Gly Ile Ile Asn Pro Ser Asn Gly Gly Thr Ser Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys

85 90 95  
 Thr Arg Gly Gly Tyr Tyr Pro Phe Asp Tyr Trp Gly Gln Gly Thr Thr  
 100 105 110

Val Thr Val Ser Ser  
 115

<210> 87  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

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

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

Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser  
 35 40 45

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

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Trp Gln Gly  
 85 90 95

Thr His Ser Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

<210> 88  
 <211> 117  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 88  
 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 Ser Tyr  
 20 25 30

Tyr Met Tyr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

35

40

45

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

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

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

Thr Arg Gly Gly Tyr Tyr Pro Phe Asp Tyr Trp Gly Gln Gly Thr Thr  
 100 105 110

Val Thr Val Ser Ser  
 115

<210> 89  
 <211> 112  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 89  
 Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly  
 1 5 10 15

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

Asp Gly Lys Thr Tyr Leu Tyr Trp Phe Gln Gln Arg Pro Gly Gln Ser  
 35 40 45

Pro Arg Arg Leu Ile Tyr Leu Val Ser Glu Arg Asp Ser Gly Val Pro  
 50 55 60

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

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Trp Gln Gly  
 85 90 95

Thr His Ser Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

<210> 90  
 <211> 121  
 <212> PRT  
 <213> Artificial Sequence

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

## polypeptide

&lt;400&gt; 90

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 Tyr Ser Ile Thr Ser Asp  
 20 25 30

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

Ile Gly Tyr Ile Ser Phe Ser Gly Tyr Thr Tyr Tyr Asn Pro Ser Leu  
 50 55 60

Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser  
 65 70 75 80

Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Ala Arg Glu Val Asn Tyr Gly Asp Ser Tyr His Phe Asp Tyr Trp Gly  
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser  
 115 120

&lt;210&gt; 91

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic  
 polypeptide

&lt;400&gt; 91

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

Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Arg Thr Tyr Thr  
 20 25 30

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

Lys Val Lys Lys Asp Gly Ser His Ser Lys Gly Asp Gly Ile Pro Asp  
 50 55 60

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

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

Ala Ile Lys Gly Gln Ser Val Phe Val Phe Gly Gly Gly Thr Lys Val  
                   100                  105                  110

Glu Ile Lys  
           115

<210> 92  
 <211> 121  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 92  
 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 Tyr Ser Ile Thr Ser Asp  
                   20                  25                  30

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

Ile Gly Tyr Ile Ser Phe Ser Gly Tyr Thr Tyr Tyr Asn Pro Ser Leu  
           50                  55                  60

Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser  
 65                  70                  75                  80

Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys  
                   85                  90                  95

Ala Arg Glu Val Asn Tyr Gly Asp Ser Tyr His Phe Asp Tyr Trp Gly  
                   100                  105                  110

Gln Gly Thr Leu Val Thr Val Ser Ser  
           115                  120

<210> 93  
 <211> 115  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 93  
 Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala  
 1                  5                  10                  15

Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Arg Thr Tyr Thr  
           20                  25                  30

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

Lys Val Lys Lys Asp Gly Ser His Ser Lys Gly Asp Gly Ile Pro Asp  
       50                          55                          60

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

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

Ala Ile Lys Gly Gln Ser Val Phe Val Phe Gly Gly Gly Thr Lys Val  
                   100                          105                          110

Glu Ile Lys  
       115

<210> 94

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
           polypeptide

<400> 94

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 Tyr Ser Ile Thr Ser Asp  
           20                          25                          30

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

Ile Gly Tyr Ile Ser Phe Ser Gly Tyr Thr Ser Tyr Asn Pro Ser Leu  
       50                          55                          60

Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser  
   65                          70                          75                          80

Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys  
                           85                          90                          95

Ala Arg Glu Val Asn Tyr Gly Asp Ser Tyr His Phe Asp Tyr Trp Gly  
                   100                          105                          110

Gln Gly Thr Leu Val Thr Val Ser Ser  
       115                          120

<210> 95

<211> 115  
 <212> PRT  
 <213> Artificial Sequence

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

<400> 95  
 Gln Leu Val Leu Thr Gln Ser Pro Ser Ala Ser Ala Ser Leu Gly Ala  
 1 5 10 15  
 Ser Val Lys Leu Thr Cys Thr Leu Ser Ser Gln His Arg Thr Tyr Thr  
 20 25 30  
 Ile Glu Trp His Gln Gln Gln Pro Glu Lys Gly Pro Arg Tyr Leu Met  
 35 40 45  
 Glu Val Lys Lys Asp Gly Ser His Ser Lys Gly Asp Gly Ile Pro Asp  
 50 55 60  
 Arg Phe Ser Gly Ser Ser Ser Gly Ala Glu Arg Tyr Leu Thr Ile Ser  
 65 70 75 80  
 Ser Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Val Gly Asp  
 85 90 95  
 Ala Ile Lys Gly Gln Ser Val Phe Val Phe Gly Gly Gly Thr Lys Val  
 100 105 110  
 Glu Ile Lys  
 115

<210> 96  
 <211> 29  
 <212> PRT  
 <213> Artificial Sequence

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

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(3)  
 <223> Xaa is modified residue Aminohexanoic acid

<400> 96  
 Cys Xaa Xaa Gln Gly Pro Trp Leu Glu Glu Glu Glu Ala Tyr Gly  
 1 5 10 15  
 Trp Met Asp Phe Gly Arg Arg Ser Ala Glu Asp Glu Asn  
 20 25

<210> 97  
 <211> 13  
 <212> PRT



<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MISC\_FEATURE

<222> (2)..(3)

<223> Xaa is modified residue Aminohexanoic acid

<400> 97

Cys Xaa Xaa Phe Gly Arg Arg Ser Ala Glu Asp Glu Asn  
1 5 10

<210> 98

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MISC\_FEATURE

<222> (11)..(12)

<223> Xaa is modified residue Aminohexanoic acid

<400> 98

Phe Gly Arg Arg Ser Ala Glu Asp Glu Asn Xaa Xaa Cys  
1 5 10

<210> 99

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 99

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

<210> 100

<211> 101

<212> PRT

<213> Homo sapiens

<400> 100

Met Gln Arg Leu Cys Val Tyr Val Leu Ile Phe Ala Leu Ala Leu Ala  
1 5 10 15

Ala Phe Ser Glu Ala Ser Trp Lys Pro Arg Ser Gln Gln Pro Asp Ala  
20 25 30

Pro Leu Gly Thr Gly Ala Asn Arg Asp Leu Glu Leu Pro Trp Leu Glu  
35 40 45

Gln Gln Gly Pro Ala Ser His His Arg Arg Gln Leu Gly Pro Gln Gly  
50 55 60

Pro Pro His Leu Val Ala Asp Pro Ser Lys Lys Gln Gly Pro Trp Leu  
65 70 75 80

Glu Glu Glu Glu Glu Ala Tyr Gly Trp Met Asp Phe Gly Arg Arg Ser  
85 90 95

Ala Glu Asp Glu Asn  
100

<210> 101  
<211> 80  
<212> PRT  
<213> Homo sapiens

<400> 101

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

Ala Asn Arg Asp Leu Glu Leu Pro Trp Leu Glu Gln Gln Gly Pro Ala  
20 25 30

Ser His His Arg Arg Gln Leu Gly Pro Gln Gly Pro Pro His Leu Val  
35 40 45

Ala Asp Pro Ser Lys Lys Gln Gly Pro Trp Leu Glu Glu Glu Glu  
50 55 60

Ala Tyr Gly Trp Met Asp Phe Gly Arg Arg Ser Ala Glu Asp Glu Asn  
65 70 75 80

<210> 102  
<211> 34  
<212> PRT  
<213> Homo sapiens

<400> 102

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

Lys Gln Gly Pro Trp Leu Glu Glu Glu Glu Ala Tyr Gly Trp Met  
20 25 30

Asp Phe

<210> 103  
<211> 35  
<212> PRT  
<213> Homo Sapiens

<400> 103

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

Lys Gln Gly Pro Trp Leu Glu Glu Glu Glu Glu Ala Tyr Gly Trp Met  
20 25 30

Asp Phe Gly  
35

<210> 104

<211> 17

<212> PRT

<213> Homo sapiens

<400> 104

Gln Gly Pro Trp Leu Glu Glu Glu Glu Glu Ala Tyr Gly Trp Met Asp  
1 5 10 15

Phe

<210> 105

<211> 18

<212> PRT

<213> Homo sapiens

<400> 105

Gln Gly Pro Trp Leu Glu Glu Glu Glu Glu Ala Tyr Gly Trp Met Asp  
1 5 10 15

Phe Gly

<210> 106

<211> 6

<212> PRT

<213> Homo sapiens

<400> 106

Ser Ala Glu Asp Glu Asn  
1 5