

SEQUENCE LISTING

<110> REGENERON PHARMACEUTICALS, INC.

<120> ANTI-EGFRvIII ANTIBODIES AND USES THEREOF

<130> A0020W001

<140> To be assigned

<141> Filed herewith

<150> 61/950,963

<151> 2014-03-11

<160> 165

<170> FastSEQ for Windows Version 4.0

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<211> 354

<212> DNA

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<223> Synthetic

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actggacagg ggcttgagtg gatgggatgg attaacccta acagtgatta cacaggctat 180
gtacagaagt tccagggcag agtcacccatg accagggaca cctccataag tacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gacatcacgg 300
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<210> 2

<211> 118

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<400> 2

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 1             5             10            15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
      20             25             30
```

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Asp Tyr Thr Gly Tyr Val 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 Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Thr Ser Arg Trp Ser Glu His Phe His His Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Ser
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<210> 3
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24

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<400> 4
 Gly Tyr Thr Phe Thr Ser Tyr Asp
 1 5

<210> 5
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24

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 6

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<220>

<223> Synthetic

<400> 6

Ile Asn Pro Asn Ser Asp Tyr Thr

1

5

<210> 7

<211> 33

<212> DNA

<213> Artificial Sequence

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<223> Synthetic

<400> 7

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33

<210> 8

<211> 11

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<223> Synthetic

<400> 8

Ala Thr Ser Arg Trp Ser Glu His Phe His His

1

5

10

<210> 9

<211> 342

<212> DNA

<213> Artificial Sequence

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<400> 9

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2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagct 120
tggtaccagc acaaaccagg acagcctcct aacctactca tttactgggc atctaccgg 180
gaatccggggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcaccaata ttatagtact 300
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<210> 10

<211> 114

<212> PRT

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<400> 10

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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 Tyr Ser
 20           25           30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln His Lys Pro Gly Gln
 35           40           45
Pro Pro Asn 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 Tyr Tyr Cys His Gln
 85           90           95
Tyr Tyr Ser Thr Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile
100           105           110
Lys Arg
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<210> 11

<211> 36

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<400> 11

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<210> 12

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<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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<400> 12

Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 13

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<223> Synthetic

<400> 13

tgggcatct

9

<210> 14

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 14

Trp Ala Ser
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<210> 15

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 15

caccaatatt atagtactcc attcact

27

<210> 16

<211> 9

<212> PRT

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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<400> 16

His Gln Tyr Tyr Ser Thr Pro Phe Thr
1 5

<210> 17

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 17

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tcctgtgtag tgtctggatt catcttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atattttatg atggaagtaa tgaatactat 180
gtagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cactgtgtat 240
ctccaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gcgagagggc 300
tacagtcagc ggtacaagta ttacttcggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 18

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 18

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Arg Arg Leu Ser Cys Val Gly Ser Gly Phe Ile 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 Leu Ile Phe Tyr Asp Gly Ser Asn Glu Tyr Tyr Val 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 Glu Gly Tyr Ser Gln Arg Tyr Lys Tyr Tyr Phe Gly Met Asp

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

			100					105				110
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	
			115					120				

<210> 19
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<400> 19
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<210> 20
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 20
 Gly Phe Ile Phe Ser Ser Tyr Gly
 1 5

<210> 21
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 21
 atattttatg atggaagtaa tgaa 24

<210> 22
 <211> 8
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<220>
 <223> Synthetic

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<400> 22

Ile Phe Tyr Asp Gly Ser Asn Glu

1

5

<210> 23

<211> 51

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<210> 24

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 24

Ala Arg Glu Gly Tyr Ser Gln Arg Tyr Lys Tyr Tyr Phe Gly Met Asp

1

5

10

15

Val

<210> 25

<211> 324

<212> DNA

<213> Artificial Sequence

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<223> Synthetic

<400> 25

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atcacttgct gggcgagtca gggtagtag agctggtag cctggtagc gcagcaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag actaacagtt tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 26

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 26

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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 Ile Ser Ser Trp
          20           25           30
Leu Ala Trp Tyr Gln Gln Gln 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 Leu
          85           90           95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
          100          105

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<210> 27

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 27

cagggtatta gcagctgg

18

<210> 28

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 28

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Gln Gly Ile Ser Ser Trp
 1           5

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2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 29

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 29

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<210> 30

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 30

Ala Ala Ser

1

<210> 31

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 31

caacagacta acagtttccc gctcact

27

<210> 32

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 32

Gln Gln Thr Asn Ser Phe Pro Leu Thr

1

5

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 33

<211> 366

<212> DNA

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<223> Synthetic

<400> 33

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tcctgtgcag cctctggatt ccccttcagt agctacgaca tgcactgggt ccgccaagct 120
acaggaaaag gtctggagtg ggtctcagct attggtactg ctggtgccac atactatcca 180
ggctccgtga agggccgatt caccatctcc agagaaaatg ccaagaactc cttgtatctt 240
caaatgaaca gcctgagagc cggggacacg gctgtgtatt actgtgcaag aggggattac 300
gtttggggga cttatcgtcc cctctttgac tactggggcc aggggaaccct ggtcaccgtc 360
tcctca                                           366
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<210> 34

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 34

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 1           5           10           15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Pro Phe Ser Ser Tyr
 20           25           30
Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
 35           40           45
Ser Ala Ile Gly Thr Ala Gly Ala Thr Tyr Tyr Pro Gly Ser Val Lys
 50           55           60
Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
 65           70           75           80
Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
 85           90           95
Arg Gly Asp Tyr Val Trp Gly Thr Tyr Arg Pro Leu Phe Asp Tyr Trp
100          105          110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115          120
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<210> 35

<211> 24

<212> DNA

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

<223> Synthetic

<400> 35

ggattcccct tcagtagcta cgac

24

<210> 36

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 36

Gly Phe Pro Phe Ser Ser Tyr Asp

1

5

<210> 37

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 37

attggtactg ctggtgccac a

21

<210> 38

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 38

Ile Gly Thr Ala Gly Ala Thr

1

5

<210> 39

<211> 48

<212> DNA

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

<223> Synthetic

<400> 39

gcaagagggg attacgtttg ggggacttat cgtccccctct ttgactac 48

<210> 40

<211> 16

<212> PRT

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<220>

<223> Synthetic

<400> 40

Ala	Arg	Gly	Asp	Tyr	Val	Trp	Gly	Thr	Tyr	Arg	Pro	Leu	Phe	Asp	Tyr
1				5				10						15	

<210> 41

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 41

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atcacttgct	gggccagtca	gggcattaac	aattatttag	cctgggtatca	acaaaaacca	120
gggaaagccc	ctaagctcct	gatctatgct	gcatccactt	tgcaaactgg	ggtcccatca	180
aggttcagcg	gcagtggatc	tgggacagaa	ttcactctca	caatcagcag	cctgcagcct	240
gaagattttg	caacttatta	ctgtcagcag	cttaatagtt	acccgctcac	tttcggcgga	300
gggaccaagg	tggagatcaa	a				321

<210> 42

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 42

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

20 25 30

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 46

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 46

Ala Ala Ser

1

<210> 47

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 47

cagcagctta atagttaccc gctcact

27

<210> 48

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 48

Gln Gln Leu Asn Ser Tyr Pro Leu Thr

1

5

<210> 49

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 49

caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggagggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agatatggca tacactgggt ccgccaggct 120

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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ccaggcaagg ggctggagtg ggtggcagtt atttggcatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga ccagcctgag agccgaggac acggctgtgt attactgtgc gagagatgga 300
ctggagatac gagatcacta ctactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372
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<210> 50

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 50

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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 Arg 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 His 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 Thr Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85           90           95
Ala Arg Asp Gly Leu Glu Ile Arg Asp His Tyr Tyr Tyr Gly Met Asp
 100          105          110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115          120
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<210> 51

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 51

ggattcacct tcagtagata tggc

24

<210> 52

<211> 8

<212> PRT

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

<223> Synthetic

<400> 52

Gly Phe Thr Phe Ser Arg Tyr Gly
1 5

<210> 53

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic

<400> 53

atttggcatg atggaagtaa taaa

24

<210> 54

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 54

Ile Trp His Asp Gly Ser Asn Lys
1 5

<210> 55

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 55

gcgagagatg gactggagat acgagatcac tactactacg gtatggacgt c

51

<210> 56

<211> 17

<212> PRT

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

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<400> 56

Ala	Arg	Asp	Gly	Leu	Glu	Ile	Arg	Asp	His	Tyr	Tyr	Tyr	Gly	Met	Asp
1				5					10					15	
Val															

<210> 57

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 57

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gggaaagccc	ctacgctcct	gatctataag	gcgtctagtt	tagaaagtgg	gggtcccatca	180
aaattcagcg	gcagtggatc	tgggacagaa	ttcactctca	ccatcagcag	cctgcagcct	240
gatgattttg	caacgtatta	ctgccaacag	tataacaggt	attctcggac	gttcgggcaa	300
gggaccaagg	tggaaattaa	a				321

<210> 58

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 58

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Thr	Leu	Ser	Ala	Ser	Val	Gly
1				5					10					15	
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Ser	Thr	Ser	Ser	Trp
			20					25					30		
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Thr	Leu	Leu	Ile
			35				40					45			
Tyr	Lys	Ala	Ser	Ser	Leu	Glu	Ser	Gly	Val	Pro	Ser	Lys	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	
Asp	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn	Arg	Tyr	Ser	Arg
				85					90					95	

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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

<210> 59
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 59
cagagtacta gtagttgg 18

<210> 60
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 60
Gln Ser Thr Ser Ser Trp
1 5

<210> 61
<211> 9
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<223> Synthetic

<400> 61
aaggcgtct 9

<210> 62
<211> 3
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<223> Synthetic

<400> 62

Lys Ala Ser

1

<210> 63

<211> 27

<212> DNA

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<400> 63

caacagtata acaggtattc tcggacg

27

<210> 64

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 64

Gln Gln Tyr Asn Arg Tyr Ser Arg Thr

1

5

<210> 65

<211> 378

<212> DNA

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<220>

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<400> 65

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gaagtgcagt tgggtggagtc tggggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagtt 120
ccaggggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga atagtctgag agctgaggac acggccttgt attactgtgc aaaagatatc 300
catgactacg gaaaagatta ctactactac tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca                                     378

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<210> 66

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 66

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asp	Asp	Tyr
			20					25					30		
Ala	Met	His	Trp	Val	Arg	Gln	Val	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ser	Gly	Ile	Ser	Trp	Asn	Ser	Gly	Ser	Ile	Gly	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	Leu	Tyr	Tyr	Cys
			85						90					95	
Ala	Lys	Asp	Ile	His	Asp	Tyr	Gly	Lys	Asp	Tyr	Tyr	Tyr	Tyr	Tyr	Gly
			100					105					110		
Met	Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser		
		115					120					125			

<210> 67

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 67

ggattcacct ttgatgatta tgcc

24

<210> 68

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 68

Gly	Phe	Thr	Phe	Asp	Asp	Tyr	Ala
1				5			

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 69

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 69

attagttgga atagtggtag cata

24

<210> 70

<211> 8

<212> PRT

<213> Artificial Sequence

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<400> 70

Ile Ser Trp Asn Ser Gly Ser Ile

1

5

<210> 71

<211> 57

<212> DNA

<213> Artificial Sequence

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<400> 71

gcaaaagata tccatgacta cggaaaagat tactactact actacggtat ggacgtc

57

<210> 72

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 72

Ala Lys Asp Ile His Asp Tyr Gly Lys Asp Tyr Tyr Tyr Tyr Tyr Gly

1

5

10

15

Met Asp Val

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 73
 <211> 324
 <212> DNA
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<220>
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 ctctcctgca gggccagtca gagtgtagc agcacctatt tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagtgtg ttactgtcag cagtatgata gttcaccgat caccttcggc 300
 caagggacac gactggagat taaa 324

<210> 74
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 74
 Glu Ile Ala 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 Val Ser 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 Asp Ser Ser Pro
 85 90 95
 Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 100 105

<210> 75
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2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

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<400> 75

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21

<210> 76

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 76

Gln Ser Val Ser Ser Thr Tyr

1

5

<210> 77

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

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<400> 77

ggtgcatcc

9

<210> 78

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 78

Gly Ala Ser

1

<210> 79

<211> 27

<212> DNA

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

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<400> 79

cagcagtatg atagttcacc gatcacc

27

<210> 80

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 80

Gln Gln Tyr Asp Ser Ser Pro Ile Thr

1

5

<210> 81

<211> 354

<212> DNA

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<220>

<223> Synthetic

<400> 81

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tcctgtgcag cgtctggatt caccttcagt gcctatgcca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaaaattat 180
gcagactccg tgaagggccg attcaccgtc tccagagaca attccaagaa cacgctgtat 240
ctggaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcta 300
atggtcggag ttactaacta ttggggccag ggaaccctgg tcaccgtctc caca 354

<210> 82

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 82

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 Ala Tyr

20

25

30

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

Ala 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 Asn Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Leu Met Val Gly Val Thr Asn Tyr Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Thr
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<210> 83
 <211> 24
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<220>
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<400> 83
 ggattcacct tcagtccta tgcc

24

<210> 84
 <211> 8
 <212> PRT
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<220>
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<400> 84
 Gly Phe Thr Phe Ser Ala Tyr Ala
 1 5

<210> 85
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 85
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24

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 86

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 86

Ile Trp Tyr Asp Gly Ser Asn Lys

1

5

<210> 87

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 87

gcgagagatc taatggtcgg agttactaac tat

33

<210> 88

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 88

Ala Arg Asp Leu Met Val Gly Val Thr Asn Tyr

1

5

10

<210> 89

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 89

gatgttgtga tgactcagtc tccactctcc ctgcccgtcg cccttggaca gccggcctcc 60

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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atctcctgca ggtctagtca aagcctcgta tacactgatg gaaacaccta cttgaattgg 120
tttcaccaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctgggggtcc cagacagatt caccggcagt gggtcaggca ctgatttcac actaaaaatc 240
agcaggggtgg aggctgagga tgttgggggtc ttttactgca tgcaaggttc acactggcct 300
ccgtacactt ttggccaggg gaccaagctg gagatcaaaa 339
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<210> 90

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 90

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Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ala Leu Gly
 1           5           10           15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Thr
 20           25           30
Asp Gly Asn Thr Tyr Leu Asn Trp Phe His Gln Arg Pro Gly Gln Ser
 35           40           45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Asp Ser Gly Val Pro
 50           55           60
Asp Arg Phe Thr 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 Phe Tyr Cys Met Gln Gly
 85           90           95
Ser His Trp Pro Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
 100          105          110
Lys
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<210> 91

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 91

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caaagcctcg tatacactga tggaaacacc tac 33
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<210> 92

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 92

Gln Ser Leu Val Tyr Thr Asp Gly Asn Thr Tyr
1 5 10

<210> 93

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 93

aaggtttct

9

<210> 94

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 94

Lys Val Ser
1

<210> 95

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 95

atgcaagggtt cacactggcc tccgtacact

30

<210> 96

<211> 10

<212> PRT

<213> Artificial Sequence

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<220>

<223> Synthetic

<400> 96

Met Gln Gly Ser His Trp Pro Pro Tyr Thr
1 5 10

<210> 97

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 97

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acctgcgctg tctatggtgg atccttcagt ggtaactact ggagctggat ccgccagtcc 120
ccagggaagg ggttggagtg gattggggaa atcaatcatc gtggaaactc caactacaac 180
ccgtccctca agagtcgagg caccatatca ttagacacgt ccaagaacca gttatccctg 240
aagctgaggt ctgtgaccgc cgcggacacg gccatgtatt attgtgtgag aggggggtggg 300
gactactact tcggcatgga cgtctggggc cagggggacca cggtcaccgt ctcctca 357

<210> 98

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 98

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

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

Thr Thr Val Thr Val Ser Ser
115

<210> 99
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 99
ggtggatcct tcagtggtaa ctac 24

<210> 100
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 100
Gly Gly Ser Phe Ser Gly Asn Tyr
1 5

<210> 101
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 101
atcaatcatc gtggaaaactc c 21

<210> 102
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 102

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

Ile Asn His Arg Gly Asn Ser
1 5

<210> 103
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 103
gtgagagggg gtggggacta ctacttcggc atggacgtc 39

<210> 104
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104
Val Arg Gly Gly Gly Asp Tyr Tyr Phe Gly Met Asp Val
1 5 10

<210> 105
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 105
gccatccagt tgacccagtc tccatcctcc ctgtctgcgt ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattgga aatgatttag gctggtatca gctgagacca 120
gggaaagccc ctaaactcct gatctatgct acatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt atccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa g 321

<210> 106
<211> 107
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 106

Ala	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	Gly	Ile	Gly	Asn	Asp
		20					25					30			
Leu	Gly	Trp	Tyr	Gln	Leu	Arg	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile
		35				40					45				
Tyr	Ala	Thr	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	Leu	Gln	Asp	Tyr	Asn	Tyr	Pro	Trp
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys					
			100					105							

<210> 107

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 107

cagggcattg gaaatgat

18

<210> 108

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 108

Gln	Gly	Ile	Gly	Asn	Asp
1				5	

<210> 109

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 109

gctacatcc

9

<210> 110

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 110

Ala Thr Ser

1

<210> 111

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 111

ctacaagatt acaattatcc gtggacg

27

<210> 112

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 112

Leu Gln Asp Tyr Asn Tyr Pro Trp Thr

1

5

<210> 113

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 113

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acctgcgctg tctatggagg gtccttcagt gggttactact ggagctggat ccgccagtcc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagttgacct ctgtgaccgc cgcggacacg gctgtatatt tctgtgagag aggggggtggg 300
acctactact acggtatgga cgtttggggc caagggacca cggtcaccgt ctcctca 357
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<210> 114

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 114

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 1           5           10           15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
 20           25           30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
 35           40           45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50           55           60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65           70           75           80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
 85           90           95
Arg Gly Gly Gly Thr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly
100          105          110
Thr Thr Val Thr Val Ser Ser
115
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<210> 115

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 115
ggagggtcct tcagtggta ctac 24

<210> 116
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 116
Gly Gly Ser Phe Ser Gly Tyr Tyr
1 5

<210> 117
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 117
atcaatcata gtggaagcac c 21

<210> 118
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 118
Ile Asn His Ser Gly Ser Thr
1 5

<210> 119
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<400> 119
gcgagagggg gtgggaccta ctactacggt atggacgtt 39

<210> 120
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 120
Ala Arg Gly Gly Gly Thr Tyr Tyr Tyr Gly Met Asp Val
1 5 10

<210> 121
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 121
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atcacttgcc gggcaagtca gggcattgga tatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag gattacaatt acccgtggac gttcggccaa 300
gggaccaagg tggatatcaa a 321

<210> 122
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 122
Ala 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 Gly Tyr Asp
20 25 30
Leu Gly 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

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

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	Leu	Gln	Asp	Tyr	Asn	Tyr	Pro	Trp
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Asp	Ile	Lys					
			100					105							

<210> 123
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 123
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<210> 124
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 124
 Gln Gly Ile Gly Tyr Asp
 1 5

<210> 125
 <211> 9
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 125
 gctgcatcc 9

<210> 126
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthetic

<400> 126

Ala Ala Ser

1

<210> 127

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 127

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27

<210> 128

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 128

Leu Gln Asp Tyr Asn Tyr Pro Trp Thr

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<210> 129

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 129

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acctgcgctg tctatggtgg atccttcagt ggtgactact ggagctggat tcgccagtcc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca atagacacgt ccaagaacca gttctccctg 240
aaactgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgagag aggaggcggg 300
gactactact acggtatgga cgtctggggc ctagggaacca cggtcaccgt ctcctca 357

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 130
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 130
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 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Asp
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg Gly Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val Trp Gly Leu Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 131
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 131
 ggtggatcct tcagtgggtga ctac

24

<210> 132
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 132

Gly Gly Ser Phe Ser Gly Asp Tyr
 1 5

<210> 133
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 133
 atcaatcata gtggaagcac c 21

<210> 134
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 134
 Ile Asn His Ser Gly Ser Thr
 1 5

<210> 135
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 135
 gcgagaggag gcgggggacta ctactacggt atggacgtc 39

<210> 136
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<400> 136

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

Ala Arg Gly Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val
1 5 10

<210> 137

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 137

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gggaaagccc ctaacctcct gatctatgct acatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttactctca ccatcagcag cctgcagcct 240
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<212> PRT

<213> Artificial Sequence

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<400> 138

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20 25 30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Thr 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 Leu Gln Asp Tyr Asn Tyr Pro Trp
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Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
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<400> 140

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<210> 141

<211> 9

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<223> Synthetic

<400> 141

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<220>

<223> Synthetic

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<223> Synthetic

<400> 144

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<210> 145

<211> 3633

<212> DNA

<213> Homo sapiens

<400> 145

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<211> 1210

<212> PRT

<213> Homo sapiens

<400> 146

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Leu Glu Ile Thr	Tyr Val Gln Arg	Asn Tyr Asp Leu	Ser Phe Leu Lys
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Thr Ile Gln Glu	Val Ala Gly Tyr	Val Leu Ile Ala	Leu Asn Thr Val
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Glu Arg Ile Pro	Leu Glu Asn Leu	Gln Ile Ile Arg	Gly Asn Met Tyr
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Lys Thr Gly Leu	Lys Glu Leu Pro	Met Arg Asn Leu	Gln Glu Ile Leu
130	135	140	
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145	150	155	160
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Ser Cys Pro Asn	Gly Ser Cys Trp	Gly Ala Gly Glu	Glu Asn Cys Gln
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Ala Thr Asn Ile	Lys His Phe Lys	Asn Cys Thr Ser	Ile Ser Gly Asp
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Leu His Ile Leu	Pro Val Ala Phe	Arg Gly Asp Ser	Phe Thr His Thr
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Phe	Gly	Thr	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Ile	Ser	Asn	Arg	Gly	Glu
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Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp	Gly	Pro	His	Cys	Val
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Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu	Cys	His	Pro	Asn	Cys
	610					615					620				
Thr	Tyr	Gly	Cys	Thr	Gly	Pro	Gly	Leu	Glu	Gly	Cys	Pro	Thr	Asn	Gly
625					630					635					640
Pro	Lys	Ile	Pro	Ser	Ile	Ala	Thr	Gly	Met	Val	Gly	Ala	Leu	Leu	Leu
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Leu	Leu	Val	Val	Ala	Leu	Gly	Ile	Gly	Leu	Phe	Met	Arg	Arg	Arg	His
			660					665					670		
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Val	Glu	Pro	Leu	Thr	Pro	Ser	Gly	Glu	Ala	Pro	Asn	Gln	Ala	Leu	Leu
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Gly	Ala	Phe	Gly	Thr	Val	Tyr	Lys	Gly	Leu	Trp	Ile	Pro	Glu	Gly	Glu
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Lys	Val	Lys	Ile	Pro	Val	Ala	Ile	Lys	Glu	Leu	Arg	Glu	Ala	Thr	Ser
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Trp Cys Val Gln Ile	Ala Lys Gly Met Asn Tyr Leu Glu Asp Arg Arg	815
	820	825
Leu Val His Arg Asp	Leu Ala Ala Arg Asn Val Leu Val Lys Thr Pro	830
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Gln His Val Lys Ile	Thr Asp Phe Gly Leu Ala Lys Leu Leu Gly Ala	845
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Glu Glu Lys Glu Tyr	His Ala Glu Gly Gly Lys Val Pro Ile Lys Trp	860
865	870	875
Met Ala Leu Glu Ser	Ile Leu His Arg Ile Tyr Thr His Gln Ser Asp	880
	885	890
Val Trp Ser Tyr Gly	Val Thr Val Trp Glu Leu Met Thr Phe Gly Ser	895
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Lys Pro Tyr Asp Gly	Ile Pro Ala Ser Glu Ile Ser Ser Ile Leu Glu	910
	915	920
Lys Gly Glu Arg Leu	Pro Gln Pro Pro Ile Cys Thr Ile Asp Val Tyr	925
	930	935
Met Ile Met Val Lys	Cys Trp Met Ile Asp Ala Asp Ser Arg Pro Lys	940
945	950	955
Phe Arg Glu Leu Ile	Ile Glu Phe Ser Lys Met Ala Arg Asp Pro Gln	960
	965	970
Arg Tyr Leu Val Ile	Gln Gly Asp Glu Arg Met His Leu Pro Ser Pro	975
	980	985
Thr Asp Ser Asn Phe	Tyr Arg Ala Leu Met Asp Glu Glu Asp Met Asp	990
	995	1000
Asp Val Val Asp Ala	Asp Glu Tyr Leu Ile Pro Gln Gln Gly Phe Phe	1005
	1010	1015
Ser Ser Pro Ser Thr	Ser Arg Thr Pro Leu Leu Ser Ser Leu Ser Ala	1020
1025	1030	1035
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	1045	1050
Ser Cys Pro Ile Lys	Glu Asp Ser Phe Leu Gln Arg Tyr Ser Ser Asp	1055
	1060	1065
Pro Thr Gly Ala Leu	Thr Glu Asp Ser Ile Asp Asp Thr Phe Leu Pro	1070
	1075	1080
Val Pro Glu Tyr Ile	Asn Gln Ser Val Pro Lys Arg Pro Ala Gly Ser	1085
	1090	1095
Val Gln Asn Pro Val	Tyr His Asn Gln Pro Leu Asn Pro Ala Pro Ser	1100
1105	1110	1115
Arg Asp Pro His Tyr	Gln Asp Pro His Ser Thr Ala Val Gly Asn Pro	1120
	1125	1130
Glu Tyr Leu Asn Thr	Val Gln Pro Thr Cys Val Asn Ser Thr Phe Asp	1135
	1140	1145
Ser Pro Ala His Trp	Ala Gln Lys Gly Ser His Gln Ile Ser Leu Asp	1150

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1205	1210	

<210> 147
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<400> 147

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Tyr Glu Met Glu Glu Asp Gly Val Arg Lys Cys Lys Lys Cys Glu Gly		
50	55	60
Pro Cys Arg Lys Val Cys Asn Gly Ile Gly Ile Gly Glu Phe Lys Asp		
65	70	75
Ser Leu Ser Ile Asn Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr		
85	90	95
Ser Ile Ser Gly Asp Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp		
100	105	110
Ser Phe Thr His Thr Pro Pro Leu Asp Pro Gln Glu Leu Asp Ile Leu		
115	120	125
Lys Thr Val Lys Glu Ile Thr Gly Phe Leu Leu Ile Gln Ala Trp Pro		
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Glu Asn Arg Thr Asp Leu His Ala Phe Glu Asn Leu Glu Ile Ile Arg		
145	150	155
Gly Arg Thr Lys Gln His Gly Gln Phe Ser Leu Ala Val Val Ser Leu		
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Asn Ile Thr Ser Leu Gly Leu Arg Ser Leu Lys Glu Ile Ser Asp Gly		
180	185	190
Asp Val Ile Ile Ser Gly Asn Lys Asn Leu Cys Tyr Ala Asn Thr Ile		
195	200	205
Asn Trp Lys Lys Leu Phe Gly Thr Ser Gly Gln Lys Thr Lys Ile Ile		
210	215	220
Ser Asn Arg Gly Glu Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His		
225	230	235
Ala Leu Cys Ser Pro Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys		
245	250	255
Val Ser Cys Arg Asn Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys		

260 265 270

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Met	Arg	Arg	Arg	His	Ile	Val	Arg	Lys	Arg	Thr	Leu	Arg	Arg	Leu	Leu
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Gln	Glu	Arg	Glu	Leu	Val	Glu	Pro	Leu	Thr	Pro	Ser	Gly	Glu	Ala	Pro
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Asn	Gln	Ala	Leu	Leu	Arg	Ile	Leu	Lys	Glu	Thr	Glu	Phe	Lys	Lys	Ile
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Lys	Val	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Thr	Val	Tyr	Lys	Gly	Leu	Trp
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Ile	Pro	Glu	Gly	Glu	Lys	Val	Lys	Ile	Pro	Val	Ala	Ile	Lys	Glu	Leu
465					470					475					480
Arg	Glu	Ala	Thr	Ser	Pro	Lys	Ala	Asn	Lys	Glu	Ile	Leu	Asp	Glu	Ala
				485					490					495	
Tyr	Val	Met	Ala	Ser	Val	Asp	Asn	Pro	His	Val	Cys	Arg	Leu	Leu	Gly
			500					505					510		
Ile	Cys	Leu	Thr	Ser	Thr	Val	Gln	Leu	Ile	Thr	Gln	Leu	Met	Pro	Phe
		515					520					525			
Gly	Cys	Leu	Leu	Asp	Tyr	Val	Arg	Glu	His	Lys	Asp	Asn	Ile	Gly	Ser
	530					535					540				
Gln	Tyr	Leu	Leu	Asn	Trp	Cys	Val	Gln	Ile	Ala	Lys	Gly	Met	Asn	Tyr
545					550					555					560
Leu	Glu	Asp	Arg	Arg	Leu	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val
				565					570					575	
Leu	Val	Lys	Thr	Pro	Gln	His	Val	Lys	Ile	Thr	Asp	Phe	Gly	Leu	Ala
			580					585					590		
Lys	Leu	Leu	Gly	Ala	Glu	Glu	Lys	Glu	Tyr	His	Ala	Glu	Gly	Gly	Lys
		595					600					605			
Val	Pro	Ile	Lys	Trp	Met	Ala	Leu	Glu	Ser	Ile	Leu	His	Arg	Ile	Tyr
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Thr	His	Gln	Ser												

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Thr	Ile	Asp	Val	Tyr	Met	Ile	Met	Val	Lys	Cys	Trp	Met	Ile	Asp	Ala		
		675							680					685			
Asp	Ser	Arg	Pro	Lys	Phe	Arg	Glu	Leu	Ile	Ile	Glu	Phe	Ser	Lys	Met		
	690						695					700					
Ala	Arg	Asp	Pro	Gln	Arg	Tyr	Leu	Val	Ile	Gln	Gly	Asp	Glu	Arg	Met		
705					710					715					720		
His	Leu	Pro	Ser	Pro	Thr	Asp	Ser	Asn	Phe	Tyr	Arg	Ala	Leu	Met	Asp		
			725						730					735			
Glu	Glu	Asp	Met	Asp	Asp	Val	Val	Asp	Ala	Asp	Glu	Tyr	Leu	Ile	Pro		
		740							745					750			
Gln	Gln	Gly	Phe	Phe	Ser	Ser	Pro	Ser	Thr	Ser	Arg	Thr	Pro	Leu	Leu		
		755					760					765					
Ser	Ser	Leu	Ser	Ala	Thr	Ser	Asn	Asn	Ser	Thr	Val	Ala	Cys	Ile	Asp		
	770					775					780						
Arg	Asn	Gly	Leu	Gln	Ser	Cys	Pro	Ile	Lys	Glu	Asp	Ser	Phe	Leu	Gln		
785					790					795					800		
Arg	Tyr	Ser	Ser	Asp	Pro	Thr	Gly	Ala	Leu	Thr	Glu	Asp	Ser	Ile	Asp		
			805						810					815			
Asp	Thr	Phe	Leu	Pro	Val	Pro	Glu	Tyr	Ile	Asn	Gln	Ser	Val	Pro	Lys		
		820						825					830				
Arg	Pro	Ala	Gly	Ser	Val	Gln	Asn	Pro	Val	Tyr	His	Asn	Gln	Pro	Leu		
	835						840					845					
Asn	Pro	Ala	Pro	Ser	Arg	Asp	Pro	His	Tyr	Gln	Asp	Pro	His	Ser	Thr		
	850					855					860						
Ala	Val	Gly	Asn	Pro	Glu	Tyr	Leu	Asn	Thr	Val	Gln	Pro	Thr	Cys	Val		
865					870					875					880		
Asn	Ser	Thr	Phe	Asp	Ser	Pro	Ala	His	Trp	Ala	Gln	Lys	Gly	Ser	His		
			885						890					895			
Gln	Ile	Ser	Leu	Asp	Asn	Pro	Asp	Tyr	Gln	Gln	Asp	Phe	Phe	Pro	Lys		
		900						905					910				
Glu	Ala	Lys	Pro	Asn	Gly	Ile	Phe	Lys	Gly	Ser	Thr	Ala	Glu	Asn	Ala		
	915					920						925					
Glu	Tyr	Leu	Arg	Val	Ala	Pro	Gln	Ser	Ser	Glu	Phe	Ile	Gly	Ala			
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<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 148

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1 5 10

<210> 149
<211> 19
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<213> Artificial Sequence

<220>
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<400> 149
Leu Glu Glu Lys Lys Gly Asn Tyr Val Val Thr Asp His Gly Gly Gly
1 5 10 15
Gly Ser Lys

<210> 150
<211> 18
<212> PRT
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<220>
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<400> 150
Gly Gly Gly Gly Ser Leu Glu Glu Lys Lys Gly Asn Tyr Val Val Thr
1 5 10 15
Asp His

<210> 151
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
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<400> 151
Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu Asp Gly Val Arg Lys Cys
1 5 10 15
Gly Gly Gly Gly Ser Lys
20

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<210> 152

<211> 408

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 152

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Ala Leu Cys Pro Ala Ser Arg Ala Leu Glu Glu Lys Lys Gly Asn Tyr
 20           25           30
Val Val Thr Asp His Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser
 35           40           45
Tyr Glu Met Glu Glu Asp Gly Val Arg Lys Cys Lys Lys Cys Glu Gly
 50           55           60
Pro Cys Arg Lys Val Cys Asn Gly Ile Gly Ile Gly Glu Phe Lys Asp
 65           70           75           80
Ser Leu Ser Ile Asn Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr
 85           90           95
Ser Ile Ser Gly Asp Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp
100          105          110
Ser Phe Thr His Thr Pro Pro Leu Asp Pro Gln Glu Leu Asp Ile Leu
115          120          125
Lys Thr Val Lys Glu Ile Thr Gly Phe Leu Leu Ile Gln Ala Trp Pro
130          135          140
Glu Asn Arg Thr Asp Leu His Ala Phe Glu Asn Leu Glu Ile Ile Arg
145          150          155          160
Gly Arg Thr Lys Gln His Gly Gln Phe Ser Leu Ala Val Val Ser Leu
165          170          175
Asn Ile Thr Ser Leu Gly Leu Arg Ser Leu Lys Glu Ile Ser Asp Gly
180          185          190
Asp Val Ile Ile Ser Gly Asn Lys Asn Leu Cys Tyr Ala Asn Thr Ile
195          200          205
Asn Trp Lys Lys Leu Phe Gly Thr Ser Gly Gln Lys Thr Lys Ile Ile
210          215          220
Ser Asn Arg Gly Glu Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His
225          230          235          240
Ala Leu Cys Ser Pro Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys
245          250          255
Val Ser Cys Arg Asn Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys
260          265          270
Asn Leu Leu Glu Gly Glu Pro Arg Glu Phe Val Glu Asn Ser Glu Cys
275          280          285
Ile Gln Cys His Pro Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys
290          295          300

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Thr	Gly	Arg	Gly	Pro	Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp
305					310					315					320
Gly	Pro	His	Cys	Val	Lys	Thr	Cys	Pro	Ala	Gly	Val	Met	Gly	Glu	Asn
			325						330					335	
Asn	Thr	Leu	Val	Trp	Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu
		340						345					350		
Cys	His	Pro	Asn	Cys	Thr	Tyr	Gly	Cys	Thr	Gly	Pro	Gly	Leu	Glu	Gly
	355						360					365			
Cys	Pro	Thr	Asn	Gly	Pro	Lys	Ile	Pro	Ser	Ile	Ala	Glu	Gln	Lys	Leu
	370					375					380				
Ile	Ser	Glu	Glu	Asp	Leu	Gly	Gly	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu
385					390					395					400
Asp	Leu	His	His	His	His	His	His								
				405											

<210> 153

<211> 613

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 153

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Ala	Leu	Cys	Pro	Ala	Ser	Arg	Ala	Leu	Glu	Glu	Lys	Lys	Gly	Asn	Tyr
		20					25						30		
Val	Val	Thr	Asp	His	Gly	Ser	Cys	Val	Arg	Ala	Cys	Gly	Ala	Asp	Ser
		35				40						45			
Tyr	Glu	Met	Glu	Glu	Asp	Gly	Val	Arg	Lys	Cys	Lys	Lys	Cys	Glu	Gly
	50					55					60				
Pro	Cys	Arg	Lys	Val	Cys	Asn	Gly	Ile	Gly	Ile	Gly	Glu	Phe	Lys	Asp
65					70					75					80
Ser	Leu	Ser	Ile	Asn	Ala	Thr	Asn	Ile	Lys	His	Phe	Lys	Asn	Cys	Thr
			85						90					95	
Ser	Ile	Ser	Gly	Asp	Leu	His	Ile	Leu	Pro	Val	Ala	Phe	Arg	Gly	Asp
			100					105					110		
Ser	Phe	Thr	His	Thr	Pro	Pro	Leu	Asp	Pro	Gln	Glu	Leu	Asp	Ile	Leu
		115					120						125		
Lys	Thr	Val	Lys	Glu	Ile	Thr	Gly	Phe	Leu	Leu	Ile	Gln	Ala	Trp	Pro
	130					135						140			
Glu	Asn	Arg	Thr	Asp	Leu	His	Ala	Phe	Glu	Asn	Leu	Glu	Ile	Ile	Arg
145					150					155					160
Gly	Arg	Thr	Lys	Gln	His	Gly	Gln	Phe	Ser	Leu	Ala	Val	Val	Ser	Leu
			165						170					175	
Asn	Ile	Thr	Ser	Leu	Gly	Leu	Arg	Ser	Leu	Lys	Glu	Ile	Ser	Asp	Gly

180 185 190

Asp	Val	Ile	Ile	Ser	Gly	Asn	Lys	Asn	Leu	Cys	Tyr	Ala	Asn	Thr	Ile
		195					200					205			
Asn	Trp	Lys	Lys	Leu	Phe	Gly	Thr	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Ile
	210					215					220				
Ser	Asn	Arg	Gly	Glu	Asn	Ser	Cys	Lys	Ala	Thr	Gly	Gln	Val	Cys	His
225					230					235					240
Ala	Leu	Cys	Ser	Pro	Glu	Gly	Cys	Trp	Gly	Pro	Glu	Pro	Arg	Asp	Cys
				245					250					255	
Val	Ser	Cys	Arg	Asn	Val	Ser	Arg	Gly	Arg	Glu	Cys	Val	Asp	Lys	Cys
			260					265					270		
Asn	Leu	Leu	Glu	Gly	Glu	Pro	Arg	Glu	Phe	Val	Glu	Asn	Ser	Glu	Cys
		275					280					285			
Ile	Gln	Cys	His	Pro	Glu	Cys	Leu	Pro	Gln	Ala	Met	Asn	Ile	Thr	Cys
	290					295					300				
Thr	Gly	Arg	Gly	Pro	Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp
305					310					315					320
Gly	Pro	His	Cys	Val	Lys	Thr	Cys	Pro	Ala	Gly	Val	Met	Gly	Glu	Asn
				325					330					335	
Asn	Thr	Leu	Val	Trp	Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu
			340					345					350		
Cys	His	Pro	Asn	Cys	Thr	Tyr	Gly	Cys	Thr	Gly	Pro	Gly	Leu	Glu	Gly
		355					360					365			
Cys	Pro	Thr	Asn	Gly	Pro	Lys	Ile	Pro	Ser	Ile	Ala	Glu	Pro	Arg	Gly
	370					375					380				
Pro	Thr	Ile	Lys	Pro	Cys	Pro	Pro	Cys	Lys	Cys	Pro	Ala	Pro	Asn	Leu
385					390					395					400
Leu	Gly	Gly	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Lys	Ile	Lys	Asp	Val
				405					410					415	
Leu	Met	Ile	Ser	Leu	Ser	Pro	Ile	Val	Thr	Cys	Val	Val	Val	Asp	Val
			420					425					430		
Ser	Glu	Asp	Asp	Pro	Asp	Val	Gln	Ile	Ser	Trp	Phe	Val	Asn	Asn	Val
		435					440					445			
Glu	Val	His	Thr	Ala	Gln	Thr	Gln	Thr	His	Arg	Glu	Asp	Tyr	Asn	Ser
	450					455					460				
Thr	Leu	Arg	Val	Val	Ser	Ala	Leu	Pro	Ile	Gln	His	Gln	Asp	Trp	Met
465					470					475					480
Ser	Gly	Lys	Glu	Phe	Lys	Cys	Lys	Val	Asn	Asn	Lys	Asp	Leu	Pro	Ala
				485					490					495	
Pro	Ile	Glu	Arg	Thr	Ile	Ser	Lys	Pro	Lys	Gly	Ser	Val	Arg	Ala	Pro
			500					505					510		
Gln	Val	Tyr	Val	Leu	Pro	Pro	Pro	Glu	Glu	Glu	Met	Thr	Lys	Lys	Gln
		515					520					525			
Val	Thr	Leu	Thr	Cys	Met	Val	Thr	Asp	Phe	Met	Pro	Glu	Asp	Ile	Tyr
	530					535					540				
Val	Glu	Trp	Thr	Asn	Asn	Gly									

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				565					570					575			
Arg	Val	Glu	Lys	Lys	Asn	Trp	Val	Glu	Arg	Asn	Ser	Tyr	Ser	Cys	Ser		
			580					585					590				
Val	Val	His	Glu	Gly	Leu	His	Asn	His	His	Thr	Thr	Lys	Ser	Phe	Ser		
		595					600					605					
Arg	Thr	Pro	Gly	Lys													
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<210> 154

<211> 684

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 154

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

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Thr	Gly	Pro	Arg	Glu	Ser	Asp	Cys	Leu	Val	Cys	Arg	Lys	Phe	Arg	Asp
				245					250					255	
Glu	Ala	Thr	Cys	Lys	Asp	Thr	Cys	Pro	Pro	Leu	Met	Leu	Tyr	Asn	Pro
			260					265						270	
Thr	Thr	Tyr	Gln	Met	Asp	Val	Asn	Pro	Glu	Gly	Lys	Tyr	Ser	Phe	Gly
		275					280					285			
Ala	Thr	Cys	Val	Lys	Lys	Cys	Pro	Arg	Asn	Tyr	Val	Val	Thr	Asp	His
	290					295					300				
Gly	Ser	Cys	Val	Arg	Ala	Cys	Gly	Ala	Asp	Ser	Tyr	Glu	Met	Glu	Glu
305					310					315					320
Asp	Gly	Val	Arg	Lys	Cys	Lys	Lys	Cys	Glu	Gly	Pro	Cys	Arg	Lys	Val
				325					330					335	
Cys	Asn	Gly	Ile	Gly	Ile	Gly	Glu	Phe	Lys	Asp	Ser	Leu	Ser	Ile	Asn
		340						345						350	
Ala	Thr	Asn	Ile	Lys	His	Phe	Lys	Asn	Cys	Thr	Ser	Ile	Ser	Gly	Asp
		355					360						365		
Leu	His	Ile	Leu	Pro	Val	Ala	Phe	Arg	Gly	Asp	Ser	Phe	Thr	His	Thr
	370					375					380				
Pro	Pro	Leu	Asp	Pro	Gln	Glu	Leu	Asp	Ile	Leu	Lys	Thr	Val	Lys	Glu
385					390					395					400
Ile	Thr	Gly	Phe	Leu	Leu	Ile	Gln	Ala	Trp	Pro	Glu	Asn	Arg	Thr	Asp
			405						410					415	
Leu	His	Ala	Phe	Glu	Asn	Leu	Glu	Ile	Ile	Arg	Gly	Arg	Thr	Lys	Gln
		420						425					430		
His	Gly	Gln	Phe	Ser	Leu	Ala	Val	Val	Ser	Leu	Asn	Ile	Thr	Ser	Leu
		435					440					445			
Gly	Leu	Arg	Ser	Leu	Lys	Glu	Ile	Ser	Asp	Gly	Asp	Val	Ile	Ile	Ser
	450					455				460					
Gly	Asn	Lys	Asn	Leu	Cys	Tyr	Ala	Asn	Thr	Ile	Asn	Trp	Lys	Lys	Leu
465					470					475					480
Phe	Gly	Thr	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Ile	Ser	Asn	Arg	Gly	Glu
				485					490					495	
Asn	Ser	Cys	Lys	Ala	Thr	Gly	Gln	Val	Cys	His	Ala	Leu	Cys	Ser	Pro
		500						505					510		
Glu	Gly	Cys	Trp	Gly	Pro	Glu	Pro	Arg	Asp	Cys	Val	Ser	Cys	Arg	Asn
		515					520						525		
Val	Ser	Arg	Gly	Arg	Glu	Cys	Val	Asp	Lys	Cys	Asn	Leu	Leu	Glu	Gly
	530					535					540				
Glu	Pro	Arg	Glu	Phe	Val	Glu	Asn	Ser	Glu	Cys	Ile	Gln	Cys	His	Pro
545					550					555					560
Glu	Cys	Leu	Pro	Gln	Ala	Met	Asn	Ile	Thr	Cys	Thr	Gly	Arg	Gly	Pro
				565					570					575	
Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp	Gly	Pro	His	Cys	Val
			580					585					590		
Lys	Thr	Cys	Pro	Ala	Gly	Val	Met	Gly	Glu	Asn	Asn	Thr	Leu	Val	Trp
		595					600					605			
Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu	Cys	His	Pro	Asn	Cys
	610					615						620			

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Thr	Tyr	Gly	Cys	Thr	Gly	Pro	Gly	Leu	Glu	Gly	Cys	Pro	Thr	Asn	Gly
625					630					635					640
Pro	Lys	Ile	Pro	Ser	Ile	Ala	Cys	Pro	Gly	Gly	Glu	Gln	Lys	Leu	Ile
				645					650						655
Ser	Glu	Glu	Asp	Leu	Gly	Gly	Glu	Gln	Lys	Leu	Ile	Ser	Glu	Glu	Asp
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		675					680								

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<211> 880

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 155

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

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225					230					235				240		
Thr	Gly	Pro	Arg	Glu	Ser	Asp	Cys	Leu	Val	Cys	Arg	Lys	Phe	Arg	Asp	
				245					250					255		
Glu	Ala	Thr	Cys	Lys	Asp	Thr	Cys	Pro	Pro	Leu	Met	Leu	Tyr	Asn	Pro	
			260					265						270		
Thr	Thr	Tyr	Gln	Met	Asp	Val	Asn	Pro	Glu	Gly	Lys	Tyr	Ser	Phe	Gly	
		275					280					285				
Ala	Thr	Cys	Val	Lys	Lys	Cys	Pro	Arg	Asn	Tyr	Val	Val	Thr	Asp	His	
	290					295					300					
Gly	Ser	Cys	Val	Arg	Ala	Cys	Gly	Ala	Asp	Ser	Tyr	Glu	Met	Glu	Glu	
305					310					315					320	
Asp	Gly	Val	Arg	Lys	Cys	Lys	Lys	Cys	Glu	Gly	Pro	Cys	Arg	Lys	Val	
				325					330					335		
Cys	Asn	Gly	Ile	Gly	Ile	Gly	Glu	Phe	Lys	Asp	Ser	Leu	Ser	Ile	Asn	
		340						345					350			
Ala	Thr	Asn	Ile	Lys	His	Phe	Lys	Asn	Cys	Thr	Ser	Ile	Ser	Gly	Asp	
		355					360						365			
Leu	His	Ile	Leu	Pro	Val	Ala	Phe	Arg	Gly	Asp	Ser	Phe	Thr	His	Thr	
	370					375					380					
Pro	Pro	Leu	Asp	Pro	Gln	Glu	Leu	Asp	Ile	Leu	Lys	Thr	Val	Lys	Glu	
385					390					395					400	
Ile	Thr	Gly	Phe	Leu	Leu	Ile	Gln	Ala	Trp	Pro	Glu	Asn	Arg	Thr	Asp	
			405					410						415		
Leu	His	Ala	Phe	Glu	Asn	Leu	Glu	Ile	Ile	Arg	Gly	Arg	Thr	Lys	Gln	
		420					425						430			
His	Gly	Gln	Phe	Ser	Leu	Ala	Val	Val	Ser	Leu	Asn	Ile	Thr	Ser	Leu	
		435					440					445				
Gly	Leu	Arg	Ser	Leu	Lys	Glu	Ile	Ser	Asp	Gly	Asp	Val	Ile	Ile	Ser	
	450					455				460						
Gly	Asn	Lys	Asn	Leu	Cys	Tyr	Ala	Asn	Thr	Ile	Asn	Trp	Lys	Lys	Leu	
465					470					475					480	
Phe	Gly	Thr	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Ile	Ser	Asn	Arg	Gly	Glu	
				485					490					495		
Asn	Ser	Cys	Lys	Ala	Thr	Gly	Gln	Val	Cys	His	Ala	Leu	Cys	Ser	Pro	
		500						505					510			
Glu	Gly	Cys	Trp	Gly	Pro	Glu	Pro	Arg	Asp	Cys	Val	Ser	Cys	Arg	Asn	
		515					520					525				
Val	Ser	Arg	Gly	Arg	Glu	Cys	Val	Asp	Lys	Cys	Asn	Leu	Leu	Glu	Gly	
		530				535					540					
Glu	Pro	Arg	Glu	Phe	Val	Glu	Asn	Ser	Glu	Cys	Ile	Gln	Cys	His	Pro	
545					550					555					560	
Glu	Cys	Leu	Pro	Gln	Ala	Met	Asn	Ile	Thr	Cys	Thr	Gly	Arg	Gly	Pro	
				565					570					575		
Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp	Gly	Pro	His	Cys	Val	
		580						585					590			
Lys	Thr	Cys	Pro	Ala	Gly	Val	Met	Gly	Glu	Asn	Asn	Thr	Leu	Val	Trp	
		595					600					605				
Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu	Cys	His	Pro	Asn	Cys	

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610	615	620															
Thr Tyr Gly Cys Thr Gly Pro Gly Leu Glu Gly Cys Pro Thr Asn Gly																	
625	630	635	640														
Pro Lys Ile Pro Ser Ile Ala Glu Pro Arg Gly Pro Thr Ile Lys Pro																	
	645	650	655														
Cys Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser																	
	660	665	670														
Val Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu																	
	675	680	685														
Ser Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro																	
	690	695	700														
Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala																	
705	710	715	720														
Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val																	
	725	730	735														
Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe																	
	740	745	750														
Lys Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr																	
	755	760	765														
Ile Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu																	
	770	775	780														
Pro Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys																	
785	790	795	800														
Met Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn																	
	805	810	815														
Asn Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp																	
	820	825	830														
Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys																	
	835	840	845														
Asn Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly																	
	850	855	860														
Leu His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys																	
865	870	875	880														

<210> 156

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 156

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys																	
1	5	10	15														
Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr																	
	20	25	30														

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Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser
	35						40					45			
Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser
	50					55					60				
Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr
65					70					75				80	
Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys
			85						90					95	
Lys	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys
			100					105					110		
Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro
			115				120						125		
Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys
	130					135					140				
Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp
145					150					155				160	
Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu
				165					170					175	
Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu
			180					185					190		
His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn
		195					200					205			
Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly
	210					215					220				
Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu
225					230					235				240	
Leu	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr
				245					250					255	
Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn
			260					265					270		
Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe
		275					280					285			
Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn
	290					295					300				
Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr
305					310					315				320	
Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys						
				325					330						

<210> 157

<211> 327

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<400> 157

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
 1 5 10 15
 Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 20 25 30
 Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 35 40 45
 Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 50 55 60
 Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
 65 70 75 80
 Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
 85 90 95
 Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro
 100 105 110
 Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 115 120 125
 Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 130 135 140
 Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
 145 150 155 160
 Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
 165 170 175
 Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 180 185 190
 Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
 195 200 205
 Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 210 215 220
 Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
 225 230 235 240
 Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
 245 250 255
 Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 260 265 270
 Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 275 280 285
 Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
 290 295 300
 Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 305 310 315 320
 Leu Ser Leu Ser Leu Gly Lys
 325

<210> 158

<211> 327

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<400> 158

Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg
1				5					10					15	
Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr
			20					25					30		
Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser
			35				40					45			
Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser
	50					55					60				
Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr
65					70				75					80	
Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys
			85					90						95	
Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro
			100					105						110	
Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys
		115					120					125			
Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val
						135						140			
Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp
145					150					155					160
Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe
				165					170					175	
Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp
			180					185					190		
Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu
		195					200					205			
Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg
		210				215						220			
Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys
225					230					235					240
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp
			245						250					255	
Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys
			260					265						270	
Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser
		275					280					285			
Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser
	290				295						300				
Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser
305					310				315						320
Leu	Ser	Leu	Ser	Leu	Gly	Lys									
				325											

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

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Ala

<220>
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<222> (2)...(2)
<223> Xaa = Arg or Lys

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<222> (3)...(3)
<223> Xaa = Gly or Asp

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<222> (4)...(4)
<223> Xaa = Asp, Gly, Ile or absent

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Tyr, Leu, His or absent

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Val, Glu, Asp, Met or absent

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Trp, Ile, Tyr, Val or absent

<220>

<221> VARIANT

<222> (8)...(8)

<223> Xaa = Gly or Arg

<220>

<221> VARIANT

<222> (9)...(9)

<223> Xaa = Thr, Asp, Lys, Gly or Val

<220>

<221> VARIANT

<222> (10)...(10)

<223> Xaa = His, Asp, Thr or absent

<220>

<221> VARIANT

<222> (11)...(11)

<223> Xaa = Tyr or absent

<220>

<221> VARIANT

<222> (12)...(12)

<223> Xaa = Tyr or absent

<220>

<221> VARIANT

<222> (13)...(13)

<223> Xaa = Tyr or Asn

<220>

<221> VARIANT

<222> (14)...(14)

<223> Xaa = Arg or Tyr

<220>

<221> VARIANT

<222> (15)...(15)

<223> Xaa = Pro, Tyr or absent

<220>
 <221> VARIANT
 <222> (16)...(16)
 <223> Xaa = Leu, Gly or absent

<220>
 <221> VARIANT
 <222> (17)...(17)
 <223> Xaa = Phe, Met or absent

<220>
 <221> VARIANT
 <222> (18)...(18)
 <223> Xaa = Asp or absent

<220>
 <221> VARIANT
 <222> (19)...(19)
 <223> Xaa = Tyr, Val or absent

<400> 159
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa

<210> 160
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic

<220>
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 <222> (1)...(1)
 <223> Xaa = Gln, Leu or Met

<220>
 <221> VARIANT

<222> (2)...(2)
<223> Xaa = Gln

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Leu, Tyr, Asp or Gly

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<222> (4)...(4)
<223> Xaa = Asn, Asp, Tyr or Ser

<220>
<221> VARIANT
<222> (5)...(5)
<223> Xaa = Ser, Arg, Asn or His

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<221> VARIANT
<222> (6)...(6)
<223> Xaa = Tyr, Ser or Trp

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Pro or Ser

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Pro or absent

<220>
<221> VARIANT
<222> (9)...(9)
<223> Xaa = Leu, Arg, Ile, Trp or Tyr

<220>
<221> VARIANT
<222> (10)...(10)
<223> Xaa = Thr

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<400> 160

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10

<210> 161

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

<220>

<221> VARIANT

<222> (1)...(1)

<223> Xaa = Gly

<220>

<221> VARIANT

<222> (2)...(2)

<223> Xaa = Phe or Gly

<220>

<221> VARIANT

<222> (3)...(3)

<223> Xaa = Pro, Thr or Ser

<220>

<221> VARIANT

<222> (4)...(4)

<223> Xaa = Phe

<220>

<221> VARIANT

<222> (5)...(5)

<223> Xaa = Ser or Asp

<220>

<221> VARIANT

<222> (6)...(6)

<223> Xaa = Ser, Arg, Asp, Gly or Ala

<220>

<221> VARIANT

<222> (7)...(7)

<223> Xaa = Tyr or Asp

<220>

<221> VARIANT

<222> (8)...(8)

<223> Xaa = Asp, Gly, Ala or Tyr

<400> 161

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1

5

<210> 162

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic

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<221> VARIANT

<222> (1)...(1)

<223> Xaa = Ile

<220>

<221> VARIANT

<222> (2)...(2)

<223> Xaa = Gly, Trp, Ser or Asn

<220>

<221> VARIANT

<222> (3)...(3)

<223> Xaa = His, Trp, Tyr or absent

<220>

<221> VARIANT

<222> (4)...(4)

<223> Xaa = Thr, Asp, Asn or His

<220>

<221> VARIANT

<222> (5)...(5)

<223> Xaa = Ala, Gly or Ser

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Gly or Ser

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Ala, Asn or Ser

<220>
<221> VARIANT
<222> (8)...(8)
<223> Xaa = Thr, Lys or Ile

<400> 162
Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 163
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<220>
<221> VARIANT
<222> (1)...(1)
<223> Xaa = Gln

<220>
<221> VARIANT
<222> (2)...(2)
<223> Xaa = Gly or Ser

<220>
<221> VARIANT
<222> (3)...(3)
<223> Xaa = Ile, Thr, Val or Leu

<220>

2015_03_10_A0020W001_Sequence_List_as_Filed_Text

<221> VARIANT
<222> (4)...(4)
<223> Xaa = Asn, Ser, Gly or Val

<220>
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<222> (5)...(5)
<223> Xaa = Asn, Ser or Tyr

<220>
<221> VARIANT
<222> (6)...(6)
<223> Xaa = Thr or absent

<220>
<221> VARIANT
<222> (7)...(7)
<223> Xaa = Asp or absent

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<221> VARIANT
<222> (8)...(8)
<223> Xaa = Gly or absent

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<221> VARIANT
<222> (9)...(9)
<223> Xaa = Asn or absent

<220>
<221> VARIANT
<222> (10)...(10)
<223> Xaa = Thr or absent

<220>
<221> VARIANT
<222> (11)...(11)
<223> Xaa = Tyr, Trp or Asp

<400> 163
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1

5

10

<210> 164

$\langle 211 \rangle$ 3

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Synthetic

 $\langle 220 \rangle$

<221> VARIANT

 $\langle 222 \rangle \quad (1) \dots (1)$

<223> Xaa = Ala, Lys or Gly

 $\langle 220 \rangle$

<221> VARIANT

 $\langle 222 \rangle \quad (2) \dots (2)$

<223> Xaa = Ala, Thr or Val

$\langle 220 \rangle$

<221> VARIANT

 $\langle 222 \rangle \quad (3) \dots (3)$

<223> Xaa = Ser

<400> 164

Xaa Xaa Xaa

1

<210> 165

<211> 16

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> Synthetic

<400> 165

Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu Asp Gly Val Arg Lys Cys

1

5

10

15