

SEQUENCE LISTING

<110> Adagene Inc.
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DU, Fangyong

<120> PRECISION/CONTEXT-DEPENDENT ACTIVATABLE ANTIBODIES, AND
METHODS OF MAKING AND USING THE SAME

<130> 69540-20006.41

<150> PCT/CN2018/075065

<151> 2018-02-02

<140> Not Yet Assigned

<141> Concurrently Herewith

<160> 133

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 3

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu,
Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 5

<223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val,
His, or Pro

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to ten

<220>

<221> VARIANT

<222> 3
 <223> Present in repeats of at least three and up to ten

<220>
 <221> VARIANT
 <222> 5
 <223> Present in repeats of at least one and up to ten

<400> 1
 Xaa Cys Xaa Cys Xaa
 1 5

<210> 2
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> misc_feature
 <222> 1, 2, 7, 8, 13
 <223> n = A,T,C or G

<220>
 <221> misc_feature
 <222> 3, 9
 <223> n = T or G

<220>
 <221> misc_feature
 <222> 6, 12
 <223> n = T or C

<220>
 <221> misc_feature
 <222> 14
 <223> n = A,T or C

<220>
 <221> misc_feature
 <222> 1, 2, 3
 <223> Present in repeats of at least two and up to ten

<220>
 <221> misc_feature
 <222> 7, 8, 9

<223> Present in repeats of at least three and up to ten

<220>

<221> misc_feature

<222> 13, 14, 15

<223> Present in repeats of at least one and up to ten

<400> 2

nnntgnnnnt gnnnc

15

<210> 3

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 6

<223> Xaa = Ala, Asp, Ile, Asn, Pro, or Tyr

<220>

<221> VARIANT

<222> 7

<223> Xaa = Ala, Phe, Asn, Ser, or Val

<220>

<221> VARIANT

<222> 8

<223> Xaa = Ala, His, Leu, Pro, Ser, Val, or Tyr

<220>

<221> VARIANT

<222> 9

<223> Xaa = Ala, His, Ser, or Tyr

<220>

<221> VARIANT

<222> 10

<223> Xaa = Ala, Asp, Pro, Ser, Val, or Tyr

<220>

<221> VARIANT

<222> 11

<223> Xaa = Ala, Asp, Leu, Ser, or Tyr

<220>

<221> VARIANT

<222> 13

<223> Xaa = Asp, Pro, or Val

<220>

<221> VARIANT

<222> 14

<223> Xaa = Ala, Asp, His, Pro, Ser, or Thr

<220>

<221> VARIANT

<222> 15

<223> Xaa = Ala, Asp, Phe, His, Pro, or Tyr

<220>

<221> VARIANT

<222> 16

<223> Xaa = Leu, Pro, or Tyr

<220>

<221> VARIANT

<222> 17

<223> Xaa = Phe, Pro, or Tyr

<220>

<221> VARIANT

<222> 18

<223> Xaa = Ala, Pro, Ser, or Tyr

<220>

<221> VARIANT

<222> 20

<223> Xaa = Ala, Asp, Asn, Ser, Thr, or Tyr

<220>

<221> VARIANT

<222> 21

<223> Xaa = Ala, Ser, or Tyr

<400> 3

Glu	Val	Gly	Ser	Tyr	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa
1				5				10						15	
Xaa	Xaa	Cys	Xaa	Xaa	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Glu
		20						25					30		
Asn	Leu	Tyr	Phe	Gln	Gly	Ser	Gly	Gly	Ser						
		35					40								

<210> 4

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

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 20, 21
 <223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val,

His, or Pro

<400> 4
 Glu Val Gly Ser Tyr Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Cys Xaa Xaa Ser Gly Arg Ser Ala
 20 25

<210> 5
 <211> 26
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 6, 7, 8, 9, 10, 11, 20, 21
 <223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val,
 His, or Pro

<220>
 <221> VARIANT
 <222> 13, 14, 15, 16, 17, 18
 <223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu,
 Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<400> 5
 Glu Val Gly Ser Tyr Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Cys Xaa Xaa Ser Gly Arg Ser Ala
 20 25

<210> 6
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23
 <223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val,
 His, or Pro

<400> 6
 Glu Val Gly Ser Tyr Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Cys Xaa Xaa Ser Gly Arg Ser Ala
 20 25

<210> 7
 <211> 28
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 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 6, 7, 8, 9, 10, 11, 22, 23
 <223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val,
 His, or Pro

<220>
 <221> VARIANT
 <222> 13, 14, 15, 16, 17, 18, 19, 20
 <223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu,
 Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<400> 7
 Glu Val Gly Ser Tyr Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Cys Xaa Xaa Ser Gly Arg Ser Ala
 20 25

<210> 8
 <211> 45
 <212> DNA
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<220>
 <223> Synthetic Construct

<220>
 <221> misc_feature
 <222> 16, 22, 28
 <223> n = A,T,C or G

<220>
 <221> misc_feature
 <222> 17, 23, 29
 <223> n = A,T, or C

<220>
 <221> misc_feature
 <222> 16, 17, 18
 <223> Present in repeats of six

<220>
 <221> misc_feature
 <222> 22, 23, 24
 <223> Present in repeats of six

<220>
 <221> misc_feature
 <222> 28, 29, 30
 <223> Present in repeats of two

<400> 8
 gaggttgat cctacnnctg tnnctgcnc tcaggtcgtt ccgct

45

<210> 9
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> misc_feature
 <222> 16, 22, 23, 28
 <223> n = A,T,C or G

<220>
 <221> misc_feature
 <222> 17, 29
 <223> n = A,T, or C

<220>
 <221> misc_feature
 <222> 16, 17, 18
 <223> Present in repeats of six

<220>
 <221> misc_feature
 <222> 22, 23, 24
 <223> Present in repeats of six

<220>
 <221> misc_feature
 <222> 28, 29, 30
 <223> Present in repeats of two

<400> 9
 gaggttggat cctacnctg tnnntgcnc tcaggtcggt ccgct

45

<210> 10
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<220>
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<220>
 <221> misc_feature
 <222> 16, 22, 28
 <223> n = A,T,C or G

<220>
 <221> misc_feature
 <222> 17, 23, 29
 <223> n = A,T, or C

<220>
 <221> misc_feature
 <222> 16, 17, 18
 <223> Present in repeats of six

<220>
 <221> misc_feature

<222> 22, 23, 24

<223> Present in repeats of eight

<220>

<221> misc_feature

<222> 28, 29, 30

<223> Present in repeats of two

<400> 10

gaggttggat cctacnnctg tnnctgcnn ctcaggtcggt ccgct

45

<210> 11

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> misc_feature

<222> 16, 22, 23, 28

<223> n = A,T,C or G

<220>

<221> misc_feature

<222> 17, 29

<223> n = A,T, or C

<220>

<221> misc_feature

<222> 16, 17, 18

<223> Present in repeats of six

<220>

<221> misc_feature

<222> 22, 23, 24

<223> Present in repeats of eight

<220>

<221> misc_feature

<222> 28, 29, 30

<223> Present in repeats of two

<400> 11

gaggttggat cctacnnctg tnnntgcnn ctcaggtcggt ccgct

45

<210> 12

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 12

Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro	Leu	Gly	Leu	Ala	Gly
1				5					10					15	
Ser	Gly	Gly	Ser												
			20												

<210> 13

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 13

Ser	Gly	Arg	Ser	Ala
1				5

<210> 14

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 14

Pro	Leu	Gly	Leu	Ala	Gly
1				5	

<210> 15

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 15

Glu Asn Leu Tyr Phe Gln Gly

1 5

<210> 16
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 16
Glu Val Gly Ser Tyr
1 5

<210> 17
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 17
Gly Gly Gly Gly Ser
1 5

<210> 18
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 18
Ser Gly Gly Ser
1

<210> 19
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 19

Gly Gly Ser Gly

1

<210> 20

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 20

Gly Gly Ser Gly Gly

1

5

<210> 21

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 21

Gly Ser Gly Ser Gly

1

5

<210> 22

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 22

Gly Ser Gly Gly Gly

1

5

<210> 23

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 23

Gly Gly Gly Ser Gly
 1 5

<210> 24

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 24

Gly Ser Ser Ser Gly
 1 5

<210> 25

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 25

Glu Val Gly Ser Tyr Asp Ala Leu His Tyr Ala Cys Pro Pro Asp Tyr
 1 5 10 15
 Tyr Ala Cys Tyr Tyr Ser Gly Arg Ser Ala Gly Gly Gly Gly Thr Glu
 20 25 30
 Asn Leu Tyr Phe Gln Gly Ser Gly Gly Ser
 35 40

<210> 26

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 26

Glu Val Gly Ser Tyr Asn Ser Tyr His Ala Tyr Cys Pro His Pro Leu

									14							
1				5				10						15		
Tyr	Pro	Cys	Thr	Ala	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Glu	
			20					25						30		
Asn	Leu	Tyr	Phe	Gln	Gly	Ser	Gly	Gly	Ser							
		35					40									

<210> 27
 <211> 42
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

				5				10						15		
Glu	Val	Gly	Ser	Tyr	Ala	Ser	Ser	Ala	Val	Leu	Cys	Val	Thr	Ala	Tyr	
1																
Phe	Ser	Cys	Asn	Ser	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Glu	
			20					25						30		
Asn	Leu	Tyr	Phe	Gln	Gly	Ser	Gly	Gly	Ser							
		35					40									

<210> 28
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

				5				10						15		
Glu	Val	Gly	Ser	Tyr	Asn	Phe	Val	Ala	Asp	Ser	Cys	Pro	Asp	His	Pro	
1																
Tyr	Pro	Cys	Ser	Ala	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro	
			20					25						30		
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser								
		35					40									

<210> 29
 <211> 42
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

15

<400> 29

Glu Val Gly Ser Tyr Asn Phe Val Ala Asp Ser Cys Pro Asp His Pro
1 5 10 15
Tyr Pro Cys Ser Ala Ser Gly Arg Ser Ala Gly Gly Gly Gly Thr Glu
20 25 30
Asn Leu Tyr Phe Gln Gly Ser Gly Gly Ser
35 40

<210> 30

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 30

Glu Val Gly Ser Tyr Ile Val His His Ser Asp Cys Asp Ala Phe Tyr
1 5 10 15
Pro Tyr Cys Asp Ser Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
20 25 30
Leu Gly Leu Ala Gly Ser Gly Gly Ser
35 40

<210> 31

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 31

Glu Val Gly Ser Tyr Ile Val His His Ser Asp Cys Asp Ala Phe Tyr
1 5 10 15
Pro Tyr Cys Asp Ser Ser Gly Arg Ser Ala Gly Gly Gly Gly Thr Glu
20 25 30
Asn Leu Tyr Phe Gln Gly Ser Gly Gly Ser
35 40

<210> 32

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 32

Glu	Val	Gly	Ser	Tyr	Tyr	Ser	Ala	Tyr	Pro	Ala	Cys	Asp	Ser	His	Tyr
1				5				10						15	
Pro	Tyr	Cys	Asn	Ser	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
		20						25					30		
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 33

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 33

Glu	Val	Gly	Ser	Tyr	Tyr	Ser	Ala	Tyr	Pro	Ala	Cys	Asp	Ser	His	Tyr
1				5				10						15	
Pro	Tyr	Cys	Asn	Ser	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Glu
		20						25					30		
Asn	Leu	Tyr	Phe	Gln	Gly	Ser	Gly	Gly	Ser						
		35					40								

<210> 34

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 34

Glu	Val	Gly	Ser	Tyr	Pro	Asn	Pro	Ser	Ser	Asp	Cys	Val	Pro	Tyr	Tyr
1				5				10						15	
Tyr	Ala	Cys	Ala	Tyr	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
		20						25					30		
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 35

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 35

Glu	Val	Gly	Ser	Tyr	Pro	Asn	Pro	Ser	Ser	Asp	Cys	Val	Pro	Tyr	Tyr
1				5				10						15	
Tyr	Ala	Cys	Ala	Tyr	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Glu
		20						25					30		
Asn	Leu	Tyr	Phe	Gln	Gly	Ser	Gly	Gly	Ser						
		35					40								

<210> 36

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 36

Glu	Val	Gly	Ser	Tyr	Tyr	Ser	Ala	Tyr	Pro	Ala	Cys	Asp	Ser	His	Tyr
1				5				10						15	
Pro	Tyr	Cys	Gln	Ser	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
		20						25					30		
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 37

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 37

Glu	Val	Gly	Ser	Tyr	Tyr	Ser	Ala	Tyr	Pro	Ala	Cys	Asp	Ser	His	Tyr
1				5				10						15	
Pro	Tyr	Cys	Asn	Ser	Ala	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
		20						25					30		
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 38

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 38

Glu	Val	Gly	Ser	Tyr	Pro	Gln	Pro	Ser	Ser	Asp	Cys	Val	Pro	Tyr	Tyr
1				5				10						15	
Tyr	Ala	Cys	Ala	Tyr	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
			20					25						30	
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 39

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 39

Glu	Val	Gly	Ser	Tyr	Pro	Asn	Pro	Ala	Ser	Asp	Cys	Val	Pro	Tyr	Tyr
1				5				10						15	
Tyr	Ala	Cys	Ala	Tyr	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
			20					25						30	
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 40

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 40

Glu	Val	Gly	Ser	Tyr	Pro	Thr	Asp	Leu	Asp	Ala	Cys	Ala	Asp	Ala	Pro
1				5				10						15	
Asn	His	Cys	His	Phe	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Ser	Pro
			20					25						30	
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
		35					40								

<210> 41
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 41
 Glu Val Gly Ser Tyr Ser Ser Thr His Ala His Cys His His Ser Pro
 1 5 10 15
 Ala Asn Cys Ile Ser Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
 20 25 30
 Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 42
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 42
 Glu Val Gly Ser Tyr Asp Thr Asp Tyr Asp Phe Cys Pro Ile Leu Arg
 1 5 10 15
 His Arg Cys Asp Ser Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
 20 25 30
 Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 43
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 43
 Glu Val Gly Ser Tyr Asn Asp Tyr Asn Tyr His Cys Lys Trp Arg Pro
 1 5 10 15
 Ser Arg Cys His Asn Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
 20 25 30
 Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 44
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 44
 Glu Val Gly Ser Tyr Tyr His Asp Tyr Asp Asp Cys Arg Val Leu Pro
 1 5 10 15
 Arg Arg Cys Phe Asn Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
 20 25 30
 Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 45
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 45
 Glu Val Gly Ser Tyr Ser Asn Asn Phe Ala Ser Cys Leu Trp Arg His
 1 5 10 15
 Arg Ser Cys Ala Asp Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
 20 25 30
 Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 46
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 46
 Glu Val Gly Ser Tyr Thr Asp Asn Tyr Asp Tyr Cys Pro Arg Leu Arg
 1 5 10 15
 Arg Lys Cys Tyr His Ser Gly Arg Ser Ala Gly Gly Gly Gly Ser Pro
 20 25 30

Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 47

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 47

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

<210> 48

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 48

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

65					70					22									
Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Ser	Ser	Ser	Trp	Pro				
				85					90							95			
Pro	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg							
			100					105											

<210> 49
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 49																			
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	Ser	Leu	Ser	Thr	Gly				
			20					25					30						
Gly	Val	Gly	Val	Gly	Trp	Ile	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu				
		35				40						45							
Trp	Leu	Ala	Leu	Ile	Asp	Trp	Ala	Asp	Asp	Lys	Tyr	Tyr	Ser	Pro	Ser				
	50				55					60									
Leu	Lys	Ser	Arg	Leu	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu				
65					70				75					80					
Tyr	Leu	Gln	Leu	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr				
			85					90					95						
Cys	Ala	Arg	Gly	Gly	Ser	Asp	Thr	Val	Ile	Gly	Asp	Trp	Phe	Ala	Tyr				
			100					105					110						
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser									
		115					120												

<210> 50
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

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

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

<210> 51
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 51
 tcgggtgagg ttggatccta c 21

<210> 52
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 52
 gtacaggttc tcggtaccac c 21

<210> 53
 <211> 65
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 53
 tggagacaca gacaggatca ctggagactg ggtagcagg atatcggatc ctgaaccgcc 60
 tgaac 65

<210> 54
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 54

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cttcgctgtt ttccaatatt ttctgttatt gcttcagttt tagcaggatc cgaggttgga 60
tcctac                                     66

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<210> 55

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 2, 3, 4, 5, 6, 15, 16

<223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val, His, or Pro

<220>

<221> VARIANT

<222> 8, 9, 10, 11, 12, 13

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<400> 55

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Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
 1               5               10               15

```

<210> 56

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 2, 3, 4, 5, 6, 17, 18

<223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val, His, or Pro

<220>

<221> VARIANT

<222> 8, 9, 10, 11, 12, 13, 14, 15

25

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<400> 56

Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
1 5 10 15
Xaa Xaa

<210> 57

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16

<223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val, His, or Pro

<400> 57

Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
1 5 10 15

<210> 58

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18

<223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val, His, or Pro

<400> 58

Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys
1 5 10 15
Xaa Xaa

<210> 59

<211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 59
 Tyr Ser Ile Ser Ser Gly Tyr His Trp Ser Trp Ile
 1 5 10

<210> 60
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 60
 Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser Leu
 1 5 10 15
 Lys Ser Arg Leu
 20

<210> 61
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 61
 Ala Arg Ser Tyr Val Tyr Phe Asp Tyr
 1 5

<210> 62
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 62

Arg Ala Ser Gln Ser Val Arg Gly Arg Phe Leu Ala
1 5 10 27

<210> 63
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 63
Asp Ala Ser Asn Arg Ala Thr Gly Ile
1 5

<210> 64
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 64
Tyr Cys Gln Gln Ser Ser Ser Trp Pro Pro Thr
1 5 10

<210> 65
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 65
Phe Ser Leu Ser Thr Gly Gly Val Gly Val Gly Trp Ile
1 5 10

<210> 66
<211> 20
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 66

Leu	Ala	Leu	Ile	Asp	Trp	Ala	Asp	Asp	Lys	Tyr	Tyr	Ser	Pro	Ser	Leu
1				5					10					15	
Lys	Ser	Arg	Leu												
			20												

<210> 67

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 67

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

<210> 68

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 68

Arg	Ala	Ser	Gln	Ser	Ile	Gly	Ser	Tyr	Leu	Ala
1				5					10	

<210> 69

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 69

Asp	Ala	Ser	Asn	Leu	Glu	Thr	Gly	Val
1				5				

<210> 70

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

<220>
 <223> Synthetic Construct

<400> 70
 Tyr Cys Gln Gln Gly Tyr Tyr Leu Trp Thr
 1 5 10

<210> 71
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 1
 <223> Present in repeats of at least two and up to ten

<220>
 <221> VARIANT
 <222> 3
 <223> Present in repeats of at least three and up to ten

<220>
 <221> VARIANT
 <222> 5
 <223> Present in repeats of at least one and up to ten

<220>
 <221> VARIANT
 <222> 1, 3, 5
 <223> Xaa = Asp, Ala, Tyr, Ser, Thr, Asn, Ile, Leu, Phe, Val,
 His, or Pro

<400> 71
 Xaa Cys Xaa Cys Xaa
 1 5

<210> 72
 <211> 16
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 72

Asn	Phe	Val	Ala	Asp	Ser	Cys	Pro	Asp	His	Pro	Tyr	Pro	Cys	Ser	Ala
1				5					10					15	

<210> 73

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 73

Ile	Val	His	His	Ser	Asp	Cys	Asp	Ala	Phe	Tyr	Pro	Tyr	Cys	Asp	Ser
1				5					10					15	

<210> 74

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 74

Tyr	Ser	Ala	Tyr	Pro	Ala	Cys	Asp	Ser	His	Tyr	Pro	Tyr	Cys	Asn	Ser
1				5					10					15	

<210> 75

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 75

Pro	Asn	Pro	Ser	Ser	Asp	Cys	Val	Pro	Tyr	Tyr	Tyr	Ala	Cys	Ala	Tyr
1				5					10					15	

<210> 76
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 76
 Tyr Ser Ala Tyr Pro Ala Cys Asp Ser His Tyr Pro Tyr Cys Gln Ser
 1 5 10 15

<210> 77
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 77
 Pro Gln Pro Ser Ser Asp Cys Val Pro Tyr Tyr Tyr Ala Cys Ala Tyr
 1 5 10 15

<210> 78
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 78
 Pro Asn Pro Ala Ser Asp Cys Val Pro Tyr Tyr Tyr Ala Cys Ala Tyr
 1 5 10 15

<210> 79
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 79
 Pro Thr Asp Leu Asp Ala Cys Ala Asp Ala Pro Asn His Cys His Phe

1 5 10 32 15

<210> 80
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 80
Ser Ser Thr His Ala His Cys His His Ser Pro Ala Asn Cys Ile Ser
1 5 10 15

<210> 81
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 81
Asp Thr Asp Tyr Asp Phe Cys Pro Ile Leu Arg His Arg Cys Asp Ser
1 5 10 15

<210> 82
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 82
Asn Asp Tyr Asn Tyr His Cys Lys Trp Arg Pro Ser Arg Cys His Asn
1 5 10 15

<210> 83
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 83

Tyr	His	Asp	Tyr	Asp	Asp	Cys	Arg	Val	Leu	Pro	Arg	Arg	Cys	Phe	Asn
1				5					10					15	

<210> 84

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 84

Asn	Asn	Phe	Ala	Ser	Cys	Leu	Trp	Arg	His	Arg	Ser	Cys	Ala	Asp
1				5					10					15

<210> 85

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 85

Thr	Asp	Asn	Tyr	Asp	Tyr	Cys	Pro	Arg	Leu	Arg	Arg	Lys	Cys	Tyr	His
1				5					10					15	

<210> 86

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to ten

<220>

<221> VARIANT

<222> 3

<223> Present in repeats of at least three and up to ten

<220>
 <221> VARIANT
 <222> 5
 <223> Present in repeats of at least one and up to ten

<220>
 <221> VARIANT
 <222> 1, 3, 5
 <223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<400> 86
 Xaa Cys Xaa Cys Xaa
 1 5

<210> 87
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> misc_feature
 <222> 1, 2, 7, 8, 13, 14
 <223> n = A,T,C or G

<220>
 <221> misc_feature
 <222> 3, 9, 15
 <223> n = T or G

<220>
 <221> misc_feature
 <222> 6, 12
 <223> n = T or C

<220>
 <221> misc_feature
 <222> 1, 2, 3
 <223> Present in repeats of at least two and up to ten

<220>
 <221> misc_feature
 <222> 7, 8, 9
 <223> Present in repeats of at least three and up to ten

<220>
 <221> misc_feature
 <222> 13, 14, 15
 <223> Present in repeats of at least one and up to ten

<400> 87
 nnntgnnnnt gnnnn

15

<210> 88
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 1, 10, 11
 <223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu,
 Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>
 <221> VARIANT
 <222> 1
 <223> Present in repeats of at least two and up to 11

<400> 88
 Xaa Cys Ala Asp Ala Pro Asn His Cys Xaa Xaa
 1 5 10

<210> 89
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> VARIANT
 <222> 1, 10, 11
 <223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu,
 Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to 11

<400> 89

Xaa	Cys	His	His	Ser	Pro	Ala	Asn	Cys	Xaa	Xaa
1				5					10	

<210> 90

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to 11

<400> 90

Xaa	Cys	Pro	Ile	Leu	Arg	His	Arg	Cys	Xaa	Xaa
1				5					10	

<210> 91

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to 11

<400> 91

Xaa	Cys	Lys	Trp	Arg	Pro	Ser	Arg	Cys	Xaa	Xaa
1				5					10	

<210> 92

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to 11

<400> 92

Xaa	Cys	Arg	Val	Leu	Pro	Arg	Arg	Cys	Xaa	Xaa
1				5					10	

<210> 93

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to 11

<400> 93

Xaa	Cys	Leu	Trp	Arg	His	Arg	Ser	Cys	Xaa	Xaa
1				5					10	

<210> 94

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to 11

<400> 94

Xaa	Cys	Pro	Arg	Leu	Arg	Arg	Lys	Cys	Xaa	Xaa
1				5					10	

<210> 95

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 95

Glu	Val	Gly	Ser	Tyr	Pro	Thr	Asp	Leu	Asp	Ala	Cys	Ala	Asp	Ala	Pro
1				5				10					15		
Asn	His	Cys	His	Phe											
				20											

<210> 96

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 96

Glu	Val	Gly	Ser	Tyr	Ser	Ser	Thr	His	Ala	His	Cys	His	His	Ser	Pro
1				5					10					15	
Ala	Asn	Cys	Ile	Ser											
			20												

<210> 97

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 97

Glu	Val	Gly	Ser	Tyr	Asp	Thr	Asp	Tyr	Asp	Phe	Cys	Pro	Ile	Leu	Arg
1				5					10					15	
His	Arg	Cys	Asp	Ser											
			20												

<210> 98

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 98

Glu	Val	Gly	Ser	Tyr	Asn	Asp	Tyr	Asn	Tyr	His	Cys	Lys	Trp	Arg	Pro
1				5					10					15	
Ser	Arg	Cys	His	Asn											
			20												

<210> 99

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 99

Glu	Val	Gly	Ser	Tyr	Tyr	His	Asp	Tyr	Asp	Asp	Cys	Arg	Val	Leu	Pro
1				5					10					15	
Arg	Arg	Cys	Phe	Asn											
			20												

<210> 100

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 100

Glu	Val	Gly	Ser	Tyr	Ser	Asn	Asn	Phe	Ala	Ser	Cys	Leu	Trp	Arg	His
1				5					10					15	
Arg	Ser	Cys	Ala	Asp											
			20												

<210> 101

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 101

Glu	Val	Gly	Ser	Tyr	Thr	Asp	Asn	Tyr	Asp	Tyr	Cys	Pro	Arg	Leu	Arg
1				5					10					15	
Arg	Lys	Cys	Tyr	His											
			20												

<210> 102

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to ten

<400> 102

Xaa	Cys	Pro	Asp	His	Pro	Tyr	Pro	Cys	Xaa	Xaa
1				5					10	

<210> 103

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to ten

<400> 103

Xaa	Cys	Asp	Ala	Phe	Tyr	Pro	Tyr	Cys	Xaa	Xaa
1				5					10	

<210> 104

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu,

Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to ten

<400> 104

Xaa	Cys	Asp	Ser	His	Tyr	Pro	Tyr	Cys	Xaa	Xaa
1				5					10	

<210> 105

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> VARIANT

<222> 1, 10, 11

<223> Xaa = Ala, Cys, Asp, Glu, Phe, Gly, His, Ile, Lys, Leu, Met, Asn, Pro, Gln, Arg, Ser, Thr, Val, Trp, or Tyr

<220>

<221> VARIANT

<222> 1

<223> Present in repeats of at least two and up to ten

<400> 105

Xaa	Cys	Val	Pro	Tyr	Tyr	Tyr	Ala	Cys	Xaa	Xaa
1				5					10	

<210> 106

<400> 106

000

<210> 107

<400> 107

000

<210> 108

<400> 108

000

<210> 109
 <400> 109
 000

<210> 110
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 110
 Glu Val Gly Ser Tyr Asn Phe Val Ala Asp Ser Cys Pro Asp His Pro
 1 5 10 15
 Tyr Pro Cys Ser Ala
 20

<210> 111
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 111
 Glu Val Gly Ser Tyr Ile Val His His Ser Asp Cys Asp Ala Phe Tyr
 1 5 10 15
 Pro Tyr Cys Asp Ser
 20

<210> 112
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 112
 Glu Val Gly Ser Tyr Tyr Ser Ala Tyr Pro Ala Cys Asp Ser His Tyr
 1 5 10 15
 Pro Tyr Cys Asn Ser

20

<210> 113
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 113
 Glu Val Gly Ser Tyr Pro Asn Pro Ser Ser Asp Cys Val Pro Tyr Tyr
 1 5 10 15
 Tyr Ala Cys Ala Tyr
 20

<210> 114
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 114
 Glu Val Gly Ser Tyr Tyr Ser Ala Tyr Pro Ala Cys Asp Ser His Tyr
 1 5 10 15
 Pro Tyr Cys Gln Ser
 20

<210> 115
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 115
 Glu Val Gly Ser Tyr Tyr Ser Ala Tyr Pro Ala Cys Asp Ser His Tyr
 1 5 10 15
 Pro Tyr Cys Asn Ser
 20

<210> 116

<211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 116
 Glu Val Gly Ser Tyr Pro Gln Pro Ser Ser Asp Cys Val Pro Tyr Tyr
 1 5 10 15
 Tyr Ala Cys Ala Tyr
 20

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

<220>
 <223> Synthetic Construct

<400> 117
 Glu Val Gly Ser Tyr Pro Asn Pro Ala Ser Asp Cys Val Pro Tyr Tyr
 1 5 10 15
 Tyr Ala Cys Ala Tyr
 20

<210> 118
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 118
 Glu Val Gly Ser Tyr Ile Val His His Ser Asp Cys Asp Ala Phe Tyr
 1 5 10 15
 Pro Tyr Cys Asp Ser Ser Gly Arg Ser Ala Gly Gly Gly Gly Thr Pro
 20 25 30
 Leu Gly Leu Ala Gly Ser Gly Gly Ser
 35 40

<210> 119
 <211> 36
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 119

Glu	Val	Gly	His	Ser	Asp	Cys	Asp	Ala	Phe	Tyr	Pro	Tyr	Cys	Asp	Ser
1				5					10					15	
Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Pro	Leu	Gly	Leu	Ala	Gly
			20					25					30		
Ser	Gly	Gly	Ser												
			35												

<210> 120

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 120

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

<210> 121

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 121

Glu	Val	Gly	Ser	Tyr	Pro	Asn	Pro	Ser	Ser	Asp	Cys	Val	Pro	Tyr	Tyr
1				5					10					15	
Tyr	Ala	Cys	Ala	Tyr	Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Pro
			20					25					30		
Leu	Gly	Leu	Ala	Gly	Ser	Gly	Gly	Ser							
			35				40								

<210> 122

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 122

Glu	Val	Gly	Ser	Ser	Asp	Cys	Val	Pro	Tyr	Tyr	Tyr	Ala	Cys	Ala	Tyr
1				5					10					15	
Ser	Gly	Arg	Ser	Ala	Gly	Gly	Gly	Gly	Thr	Pro	Leu	Gly	Leu	Ala	Gly
			20					25					30		
Ser	Gly	Gly	Ser												
			35												

<210> 123

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 123

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

<210> 124

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 124

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

48
 85 90 95
 Met Tyr Pro Pro Tyr Tyr Leu Gly Ile Gly Asn Gly Ala Gln Ile
 100 105 110
 Tyr Val Ile Asp Pro Glu
 115

<210> 125
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 125
 Met His Val Ala Gln Pro Ala Val Val Leu Ala Ser Ser Arg Gly Ile
 1 5 10 15
 Ala Ser Phe Val Cys Glu Tyr Ala Ser Pro Gly Lys Ala Thr Glu Val
 20 25 30
 Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln Val Thr Glu Val Cys
 35 40 45
 Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr Phe Leu Asp Asp Ser
 50 55 60
 Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val Asn Leu Thr Ile Gln
 65 70 75 80
 Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile Cys Lys Val Glu Leu
 85 90 95
 Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly Asn Gly Thr Gln Ile
 100 105 110
 Tyr Val Ile Asp Pro Glu
 115

<210> 126
 <211> 115
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 126
 Lys Ala Met His Val Ala Gln Pro Ala Val Val Leu Ala Ser Ser Arg
 1 5 10 15
 Gly Ile Ala Ser Phe Val Cys Glu Tyr Ala Ser Pro Gly Lys Ala Thr
 20 25 30
 Glu Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln Val Thr Glu
 35 40 45

49

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

<210> 127
 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 127

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

<210> 128
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 128

Lys	Ala	Met	His	Val	Ala	Gln	Pro	Ala	Val	Val	Leu	Ala	Ser	Ser	Arg
1				5					10					15	
Gly	Ile	Ala	Ser	Phe	Val	Cys	Glu	Tyr	Ala	Ser	Pro	Gly	Lys	Ala	Thr
			20					25					30		

50
 Glu Val Arg Val Thr Val Leu Arg Gln Ala Asp Ser Gln Val Thr Glu
 35 40 45
 Val Cys Ala Ala Thr Tyr Met Met Gly Asn Glu Leu Thr Phe Leu Asp
 50 55 60
 Asp Ser Ile Cys Thr Gly Thr Ser Ser Gly Asn Gln Val Asn Leu Thr
 65 70 75 80
 Ile Gln Gly Leu Arg Ala Met Asp Thr Gly Leu Tyr Ile Cys Lys Val
 85 90 95
 Glu Leu Met Tyr Pro Pro Pro Tyr Tyr Leu Gly Ile Gly Asn Gly Thr
 100 105 110
 Gln Ile Tyr Val Ile Asp Pro Glu
 115 120

<210> 129
 <211> 120
 <212> PRT
 <213> Mus musculus

<400> 129
 Glu Ala Ile Gln Val Thr Gln Pro Ser Val Val Leu Ala Ser Ser His
 1 5 10 15
 Gly Val Ala Ser Phe Pro Cys Glu Tyr Ser Pro Ser His Asn Thr Asp
 20 25 30
 Glu Val Arg Val Thr Val Leu Arg Gln Thr Asn Asp Gln Met Thr Glu
 35 40 45
 Val Cys Ala Thr Thr Phe Thr Glu Lys Asn Thr Val Gly Phe Leu Asp
 50 55 60
 Tyr Pro Phe Cys Ser Gly Thr Phe Asn Glu Ser Arg Val Asn Leu Thr
 65 70 75 80
 Ile Gln Gly Leu Arg Ala Val Asp Thr Gly Leu Tyr Leu Cys Lys Val
 85 90 95
 Glu Leu Met Tyr Pro Pro Pro Tyr Phe Val Gly Met Gly Asn Gly Thr
 100 105 110
 Gln Ile Tyr Val Ile Asp Pro Glu
 115 120

<210> 130
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 130
 Glu Val Gly Ser Tyr Pro Asn Pro Ser Ser Asp Cys Val Pro Tyr Tyr

1 5 10 15 51
 Tyr Ala Cys Ala Tyr Ser Gly Arg Ser Ala Pro Leu Gly Leu Ala
 20 25 30

<210> 131
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 131
 Glu Asp Cys Val Pro Tyr Tyr Tyr Ala Cys Ala Tyr Ser Gly Arg Ser
 1 5 10 15
 Ala Pro Leu Gly Leu Ala
 20

<210> 132
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 132
 Glu Asp Cys Val Pro Tyr Tyr Tyr Ala Cys Ala Tyr Ser Gly Arg Ser
 1 5 10 15
 Ala

<210> 133
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 133
 Glu Asp Cys Val Pro Tyr Tyr Tyr Ala Cys Ala Tyr Pro Leu Gly Leu
 1 5 10 15
 Ala