

SEQUENCE LISTING

<110> CELGENE CORPORATION

<120> ANTIBODIES WITH LOW IMMUNOGENICITY AND USES THEREOF

<130> 12827-862-228

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<150> 62/359,150

<151> 2016-07-06

<160> 139

<170> PatentIn version 3.5

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<223> Description of Artificial Sequence: Synthetic peptide

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Met Xaa Xaa Gln Leu Val Gln Ser Gly Xaa Glu Val Lys Lys Xaa Gly
1 5 10 15

Xaa Xaa Val Lys Xaa Ser Cys Lys Xaa Ser
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Trp Val Xaa Gln Ala Xaa Gly Xaa Xaa Leu Glu Trp Xaa Gly
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<223> D or E

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<223> V or M

<400> 3
Tyr Ala Xaa Lys Xaa Gln Xaa Arg Val Thr Xaa Thr Xaa Xaa Xaa Ser
1 5 10 15

Xaa Xaa Thr Xaa Tyr Met Glu Leu Xaa Xaa Leu Arg Ala Xaa Asp Thr
20 25 30

Ala Xaa Tyr Tyr Cys
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Trp Gly Xaa Gly Thr Xaa Val Thr Val Ser Ser
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Met Gln Xaa Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Xaa Gly
1 5 10 15

Xaa Ser Val Lys Val Ser Cys Lys Ala Ser
20 25

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Trp Val Arg Gln Ala Pro Gly Xaa Xaa Leu Glu Trp Met Gly
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Tyr Ala Gln Lys Xaa Gln Xaa Arg Val Thr Xaa Thr Xaa Asp Xaa Ser
1 5 10 15

Xaa Ser Thr Ala Tyr Met Glu Leu Xaa Ser Leu Arg Xaa Xaa Asp Thr
20 25 30

Ala Xaa Tyr Tyr Cys
35

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<400> 8
Asn Ile Gln Met Thr Gln Ser Pro Ser Xaa Xaa Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys
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<400> 9
Trp Xaa Gln Gln Lys Pro Gly Lys Xaa Pro Lys His Leu Ile Tyr
1 5 10 15

<210> 10

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<400> 10
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys
20 25 30

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<400> 11
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
1 5 10

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

Ser Ser Val Lys Val Ser Cys Lys Ala Ser
20 25

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<400> 13
Trp Val Arg Gln Ala Pro Gly Lys Ala Leu Glu Trp Met Gly
1 5 10

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<400> 14
Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Met Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

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Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
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Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
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<400> 17

Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met Gly
1 5 10

<210> 18

<211> 37

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<400> 18

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Met Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 19

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<400> 19

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 20

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<400> 20

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met Gly
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<210> 21

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<223> May or may not be present

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Met Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly
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Ser Ser Val Lys Val Ser Cys Lys Ala Ser
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<210> 22

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polypeptide

<400> 22

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

Met Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 23

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<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 23

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 24

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<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 24

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Met Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys

<210> 25

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<400> 25

Tyr	Ala	Gln	Lys	Phe	Gln	Asp	Arg	Val	Thr	Ile	Thr	Arg	Asp	Arg	Ser
1				5					10					15	

Met	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr
			20					25					30		

Ala	Val	Tyr	Tyr	Cys
				35

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

Thr	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr
			20					25					30		

Ala	Met	Tyr	Tyr	Cys
				35

<210> 27

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<223> Description of Artificial Sequence: Synthetic

polypeptide

<400> 27

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

Met	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Arg	Ser	Leu	Arg	Ser	Glu	Asp	Thr
			20					25					30		

Ala	Met	Tyr	Tyr	Cys
				35

<210> 28

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<223> Description of Artificial Sequence: Synthetic polypeptide

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

Met	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr
			20					25					30		

Ala	Val	Tyr	Tyr	Cys
				35

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Tyr	Ala	Gln	Lys	Phe	Gln	Asp	Arg	Val	Thr	Ile	Thr	Arg	Asp	Arg	Ser
1				5					10					15	

Thr	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Arg	Ser	Leu	Arg	Ser	Glu	Asp	Thr
			20					25					30		

Ala Met Tyr Tyr Cys
35

<210> 30

<211> 37

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polypeptide

<400> 30

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 31

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<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 31

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Met Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 32

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 32

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

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 33

<211> 37

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<400> 33

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

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 34

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 34

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

Met Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr

20

25

30

Ala Val Tyr Tyr Cys
35

<210> 35

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Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 36

<211> 37

<212> PRT

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polypeptide

<400> 36

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

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 37

<211> 37

<212> PRT

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 37

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

Met	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ala	Glu	Asp	Thr
			20					25					30		

Ala	Met	Tyr	Tyr	Cys
				35

<210> 38

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 38

Tyr	Ala	Gln	Lys	Phe	Gln	Asp	Arg	Val	Thr	Ile	Thr	Arg	Asp	Arg	Ser
1				5					10					15	

Thr	Ser	Thr	Ala	Tyr	Met	Glu	Leu	Ser	Ser	Leu	Arg	Ala	Glu	Asp	Thr
			20					25					30		

Ala	Met	Tyr	Tyr	Cys
				35

<210> 39

<211> 37

<212> PRT

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 39

Tyr	Ala	Gln	Lys	Phe	Gln	Asp	Arg	Val	Thr	Ile	Thr	Arg	Asp	Arg	Ser
1				5					10					15	

Met Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 40

<211> 37

<212> PRT

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polypeptide

<400> 40

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Met Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 41

<211> 37

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<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 41

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

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 42

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<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 42
Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Met Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 43
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polypeptide

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

Met Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 44
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<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 44
Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser

1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

<210> 47
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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 47
Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Met Tyr Tyr Cys
35

<210> 48
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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 48
Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 49
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<400> 49

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

Met Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 50

<211> 37

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<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 50

Tyr Ala Gln Lys Phe Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser
1 5 10 15

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 51

<211> 23

<212> PRT

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peptide

<400> 51

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

Asp Arg Val Thr Ile Thr Cys
20

<210> 52

<211> 15
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<223> Description of Artificial Sequence: Synthetic peptide

<400> 52

Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	His	Leu	Ile	Tyr
1				5				10						15

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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 53

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

Asp	Arg	Val	Thr	Ile	Thr	Cys
						20

<210> 54

<211> 23

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 54

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

Asp	Arg	Val	Thr	Ile	Thr	Cys
						20

<210> 55

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<223> Description of Artificial Sequence: Synthetic peptide

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Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	His	Leu	Ile	Tyr
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<210> 56

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<223> Description of Artificial Sequence: Synthetic peptide

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Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	His	Leu	Ile	Tyr
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<223> Description of Artificial Sequence: Synthetic peptide

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Asn	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
						20

<210> 58

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 58

Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	His	Leu	Ile	Tyr
1				5				10					15	

<210> 59
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 59
Gly Phe Asn Ile Lys Asp Tyr Tyr Leu His
1 5 10

<210> 60
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 60
Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu
1 5 10

<210> 61
<211> 13
<212> PRT
<213> Artificial Sequence

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

<400> 61
Asn Ala Ala Tyr Gly Ser Ser Ser Tyr Pro Met Asp Tyr
1 5 10

<210> 62
<211> 11
<212> PRT
<213> Artificial Sequence

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

<220>

<221> MOD_RES
<222> (1)..(1)
<223> K or R

<400> 62
Xaa Ala Ser Gln Asp Ile His Arg Tyr Leu Ser
1 5 10

<210> 63
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 63
Arg Ala Asn Arg Leu Val Ser
1 5

<210> 64
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 64
Leu Gln Tyr Asp Glu Phe Pro Tyr Thr
1 5

<210> 65
<211> 7
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Any amino acid with a polar or charged side chain

<220>
<221> MOD_RES

<222> (3)..(3)

<223> V, I, E or S

<400> 65

Arg Xaa Xaa Arg Phe Val Asp
1 5

<210> 66

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 66

Lys Ala Ser Gln Asp Ile His Arg Tyr Leu Ser
1 5 10

<210> 67

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 67

Arg Tyr Val Arg Phe Val Asp
1 5

<210> 68

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 68

Arg Tyr Ile Arg Phe Val Asp
1 5

<210> 69

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 69

Arg Tyr Glu Arg Phe Val Asp
1 5

<210> 70

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 70

Arg Tyr Ser Arg Phe Val Asp
1 5

<210> 71

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 71

Arg Glu Val Arg Phe Val Asp
1 5

<210> 72

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 72

Arg Glu Ile Arg Phe Val Asp
1 5

<210> 73

<211> 7

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 73
Arg Glu Glu Arg Phe Val Asp
1 5

<210> 74
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 74
Arg Glu Ser Arg Phe Val Asp
1 5

<210> 75
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 75
Arg His Val Arg Phe Val Asp
1 5

<210> 76
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 76
Arg His Ile Arg Phe Val Asp
1 5

<210> 77
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 77
Arg His Glu Arg Phe Val Asp
1 5

<210> 78
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 78
Arg His Ser Arg Phe Val Asp
1 5

<210> 79
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 79
Arg Ala Ser Gln Asp Ile His Arg Tyr Leu Ser
1 5 10

<210> 80
<211> 120
<212> PRT
<213> Artificial Sequence

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

<400> 80
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Thr Gly Ser
1 5 10 15

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

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

Gly Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu Tyr Ala Gln Lys Phe
50 55 60

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

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

Asn Ala Ala Tyr Gly Ser Ser Ser Tyr Pro Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 81

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 81

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

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

Leu Ser Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys His Leu Ile
35 40 45

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

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

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

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

<210> 82

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 82

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

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

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

Gly Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu Tyr Ala Gln Lys Phe
50 55 60

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

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

Asn Ala Ala Tyr Gly Ser Ser Ser Tyr Pro Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
305 310 315 320

Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
340 345 350

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg
405 410 415

Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
435 440 445

<210> 83

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 83

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

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

Leu Ser Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys His Leu Ile
35 40 45

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 84

<211> 323

<212> PRT

<213> Homo sapiens

<400> 84

Met Trp Pro Leu Val Ala Ala Leu Leu Leu Gly Ser Ala Cys Cys Gly
1 5 10 15

Ser Ala Gln Leu Leu Phe Asn Lys Thr Lys Ser Val Glu Phe Thr Phe
20 25 30

Cys Asn Asp Thr Val Val Ile Pro Cys Phe Val Thr Asn Met Glu Ala
35 40 45

Gln Asn Thr Thr Glu Val Tyr Val Lys Trp Lys Phe Lys Gly Arg Asp
50 55 60

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

Phe Ser Ser Ala Lys Ile Glu Val Ser Gln Leu Leu Lys Gly Asp Ala
85 90 95

Ser Leu Lys Met Asp Lys Ser Asp Ala Val Ser His Thr Gly Asn Tyr
100 105 110

Thr Cys Glu Val Thr Glu Leu Thr Arg Glu Gly Glu Thr Ile Ile Glu
115 120 125

Leu Lys Tyr Arg Val Val Ser Trp Phe Ser Pro Asn Glu Asn Ile Leu
130 135 140

Ile Val Ile Phe Pro Ile Phe Ala Ile Leu Leu Phe Trp Gly Gln Phe
145 150 155 160

Gly Ile Lys Thr Leu Lys Tyr Arg Ser Gly Gly Met Asp Glu Lys Thr
165 170 175

Ile Ala Leu Leu Val Ala Gly Leu Val Ile Thr Val Ile Val Ile Val
180 185 190

Gly Ala Ile Leu Phe Val Pro Gly Glu Tyr Ser Leu Lys Asn Ala Thr
195 200 205

Gly Leu Gly Leu Ile Val Thr Ser Thr Gly Ile Leu Ile Leu Leu His
210 215 220

Tyr Tyr Val Phe Ser Thr Ala Ile Gly Leu Thr Ser Phe Val Ile Ala
225 230 235 240

Ile Leu Val Ile Gln Val Ile Ala Tyr Ile Leu Ala Val Val Gly Leu
245 250 255

Ser Leu Cys Ile Ala Ala Cys Ile Pro Met His Gly Pro Leu Leu Ile
260 265 270

Ser Gly Leu Ser Ile Leu Ala Leu Ala Gln Leu Leu Gly Leu Val Tyr
275 280 285

Met Lys Phe Val Ala Ser Asn Gln Lys Thr Ile Gln Pro Pro Arg Lys
290 295 300

Ala Val Glu Glu Pro Leu Asn Ala Phe Lys Glu Ser Lys Gly Met Met
305 310 315 320

Asn Asp Glu

<210> 85
<211> 305
<212> PRT
<213> Homo sapiens

<400> 85
Gln Leu Leu Phe Asn Lys Thr Lys Ser Val Glu Phe Thr Phe Cys Asn
1 5 10 15

Asp Thr Val Val Ile Pro Cys Phe Val Thr Asn Met Glu Ala Gln Asn
20 25 30

Thr Thr Glu Val Tyr Val Lys Trp Lys Phe Lys Gly Arg Asp Ile Tyr
35 40 45

Thr Phe Asp Gly Ala Leu Asn Lys Ser Thr Val Pro Thr Asp Phe Ser
50 55 60

Ser Ala Lys Ile Glu Val Ser Gln Leu Leu Lys Gly Asp Ala Ser Leu
65 70 75 80

Lys Met Asp Lys Ser Asp Ala Val Ser His Thr Gly Asn Tyr Thr Cys
85 90 95

Glu Val Thr Glu Leu Thr Arg Glu Gly Glu Thr Ile Ile Glu Leu Lys
100 105 110

Tyr Arg Val Val Ser Trp Phe Ser Pro Asn Glu Asn Ile Leu Ile Val
115 120 125

Ile Phe Pro Ile Phe Ala Ile Leu Leu Phe Trp Gly Gln Phe Gly Ile
130 135 140

Lys Thr Leu Lys Tyr Arg Ser Gly Gly Met Asp Glu Lys Thr Ile Ala
145 150 155 160

Leu Leu Val Ala Gly Leu Val Ile Thr Val Ile Val Ile Val Gly Ala
165 170 175

Ile Leu Phe Val Pro Gly Glu Tyr Ser Leu Lys Asn Ala Thr Gly Leu
180 185 190

Gly Leu Ile Val Thr Ser Thr Gly Ile Leu Ile Leu Leu His Tyr Tyr
195 200 205

Val Phe Ser Thr Ala Ile Gly Leu Thr Ser Phe Val Ile Ala Ile Leu
210 215 220

Val Ile Gln Val Ile Ala Tyr Ile Leu Ala Val Val Gly Leu Ser Leu
225 230 235 240

Cys Ile Ala Ala Cys Ile Pro Met His Gly Pro Leu Leu Ile Ser Gly
245 250 255

Leu Ser Ile Leu Ala Leu Ala Gln Leu Leu Gly Leu Val Tyr Met Lys
260 265 270

Phe Val Ala Ser Asn Gln Lys Thr Ile Gln Pro Pro Arg Lys Ala Val
275 280 285

Glu Glu Pro Leu Asn Ala Phe Lys Glu Ser Lys Gly Met Met Asn Asp
290 295 300

Glu
305

<210> 86
<211> 26
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (1)..(1)
<223> May or may not be present

<220>
<221> MOD_RES
<222> (3)..(3)
<223> V or I

<220>
<221> MOD_RES
<222> (6)..(6)
<223> K or R

<220>
<221> MOD_RES
<222> (11)..(11)
<223> V, T or A

<220>
<221> MOD_RES
<222> (17)..(17)
<223> E, Q or A

<220>
<221> MOD_RES
<222> (25)..(25)
<223> V or F

<400> 86
Met Gln Xaa Thr Leu Xaa Glu Ser Gly Pro Xaa Leu Val Lys Pro Thr
1 5 10 15

Xaa Thr Leu Thr Leu Thr Cys Thr Xaa Ser
20 25

<210> 87
<211> 14
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (9)..(9)
<223> A or G

<400> 87
Trp Ile Arg Gln Pro Pro Gly Lys Xaa Leu Glu Trp Leu Ala
1 5 10

<210> 88
<211> 37
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (3)..(3)
<223> T or P

<220>
<221> MOD_RES
<222> (7)..(7)
<223> S, T or G

<220>
<221> MOD_RES
<222> (11)..(11)
<223> I or M

<220>
<221> MOD_RES
<222> (12)..(12)
<223> S or T

<220>
<221> MOD_RES
<222> (13)..(13)
<223> K or T

<220>
<221> MOD_RES
<222> (17)..(17)
<223> K or T

<220>
<221> MOD_RES
<222> (18)..(18)
<223> N or S

<220>
<221> MOD_RES
<222> (25)..(25)
<223> T or R

<220>
<221> MOD_RES
<222> (29)..(29)
<223> P or A

<220>
<221> MOD_RES
<222> (30)..(30)
<223> V or D

<220>
<221> MOD_RES
<222> (34)..(34)
<223> T or V

<400> 88
Tyr Ser Xaa Ser Leu Lys Xaa Arg Leu Thr Xaa Xaa Xaa Asp Thr Ser
1 5 10 15

Xaa Xaa Gln Val Val Leu Thr Met Xaa Asn Met Asp Xaa Xaa Asp Thr
20 25 30

Ala Xaa Tyr Tyr Cys
35

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

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

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Q or R

<220>
<221> MOD_RES
<222> (6)..(6)
<223> L, M or T

<400> 89
Trp Gly Xaa Gly Thr Xaa Val Thr Val Ser Ser
1 5 10

<210> 90
<211> 26
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (1)..(1)
<223> May or may not be present

<220>
<221> MOD_RES
<222> (17)..(17)
<223> Q or A

<400> 90
Met Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser
1 5 10 15

Xaa Thr Leu Ser Leu Thr Cys Ala Ile Ser
20 25

<210> 91
<211> 14
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (8)..(8)
<223> R or K

<400> 91
Trp Ile Arg Gln Ser Pro Ser Xaa Gly Leu Glu Trp Leu Gly
1 5 10

<210> 92
<211> 37
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (5)..(5)
<223> V or L

<220>
<221> MOD_RES
<222> (7)..(7)
<223> S or G

<220>
<221> MOD_RES
<222> (11)..(11)
<223> I or M

<220>
<221> MOD_RES
<222> (13)..(13)
<223> P or T

<220>
<221> MOD_RES
<222> (17)..(17)
<223> K or T

<220>
<221> MOD_RES
<222> (25)..(25)
<223> N or R

<220>
<221> MOD_RES
<222> (29)..(29)
<223> P or A

<220>
<221> MOD_RES
<222> (30)..(30)
<223> E or D

<400> 92

Tyr Ala Val Ser Xaa Lys Xaa Arg Ile Thr Xaa Asn Xaa Asp Thr Ser
1 5 10 15

Xaa Asn Gln Phe Ser Leu Gln Leu Xaa Ser Val Thr Xaa Xaa Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 93

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MOD_RES

<222> (3)..(3)

<223> Q or R

<220>

<221> MOD_RES

<222> (6)..(6)

<223> L, M or T

<400> 93

Trp Gly Xaa Gly Thr Xaa Val Thr Val Ser Ser
1 5 10

<210> 94

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MOD_RES

<222> (1)..(1)

<223> May or may not be present

<400> 94

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

Ala Ser Val Lys Val Ser Cys Lys Ala Ser
20 25

<210> 95

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 95

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met Gly
1 5 10

<210> 96

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<220>

<221> MOD_RES

<222> (5)..(5)

<223> L or F

<220>

<221> MOD_RES

<222> (11)..(11)

<223> M or F

<220>

<221> MOD_RES

<222> (13)..(13)

<223> L or T

<220>

<221> MOD_RES

<222> (17)..(17)

<223> V or T

<220>

<221> MOD_RES
<222> (25)..(25)
<223> R or C

<220>
<221> MOD_RES
<222> (30)..(30)
<223> D or E

<400> 96
Tyr Ala Gln Gly Xaa Thr Gly Arg Phe Val Xaa Ser Xaa Asp Thr Ser
1 5 10 15

Xaa Ser Thr Ala Tyr Leu Gln Ile Xaa Ser Leu Lys Ala Xaa Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35

<210> 97
<211> 11
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Q or R

<220>
<221> MOD_RES
<222> (6)..(6)
<223> L, M or T

<400> 97
Trp Gly Xaa Gly Thr Xaa Val Thr Val Ser Ser
1 5 10

<210> 98
<211> 10
<212> PRT
<213> Artificial Sequence

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

peptide

<400> 98

Gly Phe Asn Ile Lys Asp Tyr Tyr Leu His
1 5 10

<210> 99

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 99

Gly Tyr Thr Phe Thr Tyr Tyr Tyr Leu His
1 5 10

<210> 100

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 100

Gly Phe Thr Phe Thr Tyr Tyr Tyr Leu His
1 5 10

<210> 101

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 101

Gly Tyr Asn Phe Thr Tyr Tyr Tyr Leu His
1 5 10

<210> 102

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 102

Gly Tyr Thr Ile Thr Tyr Tyr Tyr Leu His
1 5 10

<210> 103

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 103

Gly Tyr Thr Phe Lys Tyr Tyr Tyr Leu His
1 5 10

<210> 104

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 104

Gly Tyr Thr Phe Thr Asp Tyr Tyr Leu His
1 5 10

<210> 105

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 105

Gly Phe Thr Phe Thr Asp Tyr Tyr Leu His
1 5 10

<210> 106

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 106

Gly	Phe	Thr	Ile	Thr	Asp	Tyr	Tyr	Leu	His
1				5				10	

<210> 107

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 107

Gly	Tyr	Thr	Phe	Lys	Asp	Tyr	Tyr	Leu	His
1				5				10	

<210> 108

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 108

Gly	Phe	Thr	Phe	Lys	Asp	Tyr	Tyr	Leu	His
1				5				10	

<210> 109

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 109

Trp	Ile	Asp	Pro	Asp	Asn	Gly	Asp	Thr	Glu
1				5				10	

<210> 110

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

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 110

Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu
1 5 10

<210> 111

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 111

Trp Ile Asp Pro Asp Tyr Gly Asp Thr Glu
1 5 10

<210> 112

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 112

Trp Ile Asp Pro Asp Ser Gly Asp Thr Glu
1 5 10

<210> 113

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 113

Trp Ile Asp Pro Asp Asn Ala Asp Thr Glu
1 5 10

<210> 114
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 114
Trp Ile Asp Pro Asp Asn Thr Asp Thr Glu
1 5 10

<210> 115
<211> 13
<212> PRT
<213> Artificial Sequence

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

<400> 115
Asn Ala Ala Tyr Gly Ser Ser Ser Tyr Pro Met Asp Tyr
1 5 10

<210> 116
<211> 13
<212> PRT
<213> Artificial Sequence

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

<400> 116
Asn Ala Ala Tyr Gly Ser Ser Pro Tyr Pro Met Asp Tyr
1 5 10

<210> 117
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 117
Lys Ala Ser Gln Asp Ile His Arg Tyr Leu Ser

1 5 10

<210> 118
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 118
Arg Ala Ser Gln Asp Ile His Arg Tyr Leu Ala
1 5 10

<210> 119
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 119
Arg Ala Arg Gln Gly Ile His Arg Tyr Leu Ser
1 5 10

<210> 120
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 120
Arg Ala Asn Arg Leu Val Asp
1 5

<210> 121
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 121
Arg Ala Asn Arg Leu Gln Ser
1 5

<210> 122
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 122
Arg Ala Asn Arg Arg Ala Thr
1 5

<210> 123
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 123
Arg Ala Asn Arg Leu Val Ser
1 5

<210> 124
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 124
Leu Gln Tyr Asp Glu Phe Pro Tyr Thr
1 5

<210> 125
<211> 11
<212> PRT
<213> Artificial Sequence

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

peptide

<400> 125

Ala Tyr Gly Ser Ser Ser Tyr Pro Met Asp Tyr
1 5 10

<210> 126

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<220>

<221> MOD_RES

<222> (17)..(17)

<223> D or G

<400> 126

Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Xaa

<210> 127

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 127

Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 128

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 128

Ala	Tyr	Gly	Ser	Ser	Pro	Tyr	Pro	Met	Asp	Tyr
1				5					10	

<210> 129

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 129

Trp	Ile	Asp	Pro	Asp	Asn	Gly	Asp	Thr	Glu	Phe	Ala	Pro	Lys	Phe	Gln
1				5					10					15	

Gly

<210> 130

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 130

Trp	Ile	Asp	Pro	Asp	Asn	Gly	Asp	Thr	Glu	Tyr	Ala	Glu	Lys	Phe	Gln
1				5					10					15	

Gly

<210> 131

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 131

Trp Ile Asp Pro Asp Asn Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 132

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 132

Trp Ile Asp Pro Asp Asn Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 133

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 133

Trp Ile Asp Pro Asp Tyr Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 134

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 134

Trp Ile Asp Pro Asp Ser Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 135

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 135

Trp Ile Asp Pro Asp Asn Ala Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 136

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 136

Trp Ile Asp Pro Asp Asn Thr Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Asp

<210> 137

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 137

Trp Ile Asp Pro Asp Asn Gly Thr Glu Tyr Ala Gln Lys Phe Gln Asp
1 5 10 15

<210> 138

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 138

Trp Ile Asp Pro Asp Gln Gly Asp Thr Glu Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 139

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 139

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

Thr Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ala Glu Asp Thr
20 25 30

Ala Val Tyr Tyr Cys
35