SEQUENCE LISTING

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Day, Jonathan

<120> GLUCAGON ANALOGS EXHIBITING ENHANCED STABILITY AND SOLUBILITY IN PHYSIOLOGICAL PH BUFFERS

<130> 29920-207041 (31135/43976C)

<160> 115

<170> PatentIn version 3.5

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Arg
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Ser Gly Ala Pro Pro Pro Ser
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Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Glu Thr Lys Arg Asn
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Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Glu Thr Lys Arg Asn
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Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Xaa Asp Glu
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<223> SEQ ID NO: 1 with Ala 20, Glu 21, Ala 24, Nle 27, and Asp 28

<220>

<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 50

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Thr
20 25

<210> 51
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 1 with Ala 20, Glu 21, Ala 24, Nle 27, Asp 28, and Glu 29

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 51

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 52
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 1 with Ala 20, Glu 21, Ala 24, Nle 27, Asp 28, and Glu 30

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 52

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 53
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO :1 with Ala 20, Glu 21, Ala 24, Nle 27, Glu 28, and Glu 29

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 53

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Glu Glu
20 25

<210> 54
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 1 with Ala 20, Glu 21, Ala 24, Nle 27, Glu 28, and Glu 30

<400> 54

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 55
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE

<223> SEQ ID NO: 1 with Ala 20, Glu 21, Ala 24, Nle 27, Glu 29, and Glu 30

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 55

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asn Glu Glu
20 25 30

<210> 56
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 1 with Thr 16, Ala 20, Glu 21, Ala 24, Nle 27, Asp 28, and Glu29

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 56

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 57
<211> 31
<212> PRT
<213> Homo sapiens

<400> 57

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 58
<211> 30
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (30)..(30)
<223> AMIDATION

<400> 58

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 59
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Glutamine analog

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 59

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 60
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Glutamine analog

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aminoisobutryic acid

<400> 60

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Met Asp Glu
20 25

<210> 61
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 61

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 62
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetamidomethyl-cysteine

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 62

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 63
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synethic peptide

<220>

<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetyldiaminobutanoic acid

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 63

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 64
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Carbamoyldiaminopropanoic acid

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 64

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 65
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Methylglutamine

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 65

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 66
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Methionine sulfoxide

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 66

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 67
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetylornithine

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Nle

<400> 67

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Thr
1 5 10 15

Arg Arg Ala Ala Glu Phe Val Ala Trp Leu Xaa Asp Glu
20 25

<210> 68

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

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aminoisobutryic acid

<400> 68

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Met Asp Glu
20 25

<210> 69
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetyldiaminobutanoic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aminoisobutryic acid

<400> 69

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Met Asp Glu
20 25

<210> 70
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Methylglutamine

<220>
<221> MOD_RES

<222> (16)..(16)
<223> Xaa is Aib

<400> 70

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Met Asp Glu
20 25

<210> 71
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is acetyldiaminobutanoic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<400> 71

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Leu Asp Glu
20 25

<210> 72
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetyldiaminobutanoic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Aminoisobutryic Acid

<220>
<221> MOD_RES
<222> (39)..(39)
<223> AMIDATION

<400> 72

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ala Asp Phe Val Ala Trp Leu Leu Asp Thr Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 73
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetyldiaminobutanoic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aminoisobutryric acid

<400> 73

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Ser Asp Phe Val Ser Trp Leu Leu Asp Glu
20 25

<210> 74
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Xaa is Acetyldiaminobutanoic acid

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aminoisobutryic acid

<400> 74

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Thr Asp Phe Val Thr Trp Leu Leu Asp Glu
20 25

<210> 75
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 75

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asp Glu
20 25

<210> 76
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<400> 76

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asp Glu
20 25

<210> 77
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<400> 77

His Ser Xaa Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 78
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 78

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asp Thr
20 25

<210> 79
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> D-Ser

<220>
<221> MOD_RES
<222> (30)..(30)
<223> Acylated with a C14 fatty acyl group

<220>
<221> MOD_RES
<222> (30)..(30)
<223> AMIDATION

<400> 79

His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15

Arg Arg Ala Lys Asp Phe Val Gln Trp Leu Met Asn Thr Lys
20 25 30

<210> 80
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> D-Ser

<220>
<221> MOD_RES

<222> (10)..(10)
<223> Acylated with a C14 fatty acyl group

<220>
<221> MOD_RES
<222> (29)..(29)
<223> AMIDATION

<400> 80

His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Glu
1 5 10 15

Arg Arg Ala Lys Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 81
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> D-Ser

<220>
<221> MOD_RES
<222> (30)..(30)
<223> Acylated with a C16 fatty acyl group

<220>
<221> MOD_RES
<222> (30)..(30)
<223> AMIDATION

<400> 81

His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15

Arg Arg Ala Lys Asp Phe Val Gln Trp Leu Met Asn Thr Lys
20 25 30

<210> 82
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> D-Ser

<220>
<221> MOD_RES

<222> (10)..(10)
<223> Acylated with a C16 fatty acyl group

<220>
<221> MOD_RES
<222> (29)..(29)
<223> AMIDATION

<400> 82

His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Glu
1 5 10 15

Arg Arg Ala Lys Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 83
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Aminoisobutryic Acid

<220>
<221> MOD_RES
<222> (10)..(10)
<223> Acylated with a C18 fatty acyl group

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Cys-PEG

<220>
<221> MOD_RES
<222> (29)..(29)
<223> AMIDATION

<400> 83

His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Cys Trp Leu Met Asn Thr
20 25

<210> 84
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES

<222> (2)..(2)
<223> Aminoisobutryic Acid

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Cys-PEG

<220>
<221> MOD_RES
<222> (30)..(30)
<223> Acylated with a C18 fatty acyl group

<220>
<221> MOD_RES
<222> (30)..(30)
<223> AMIDATION

<400> 84

His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Cys Trp Leu Met Asn Thr Lys
20 25 30

<210> 85
<211> 29
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Ser or alpha, alpha-disubstituted amino acid

<220>
<221> MOD_RES
<222> (20)..(20)
<223> Xaa is Gln or alpha, alpha-disubstituted amino acid

<220>
<221> MOD_RES
<222> (21)..(21)
<223> Xaa is Asp or alpha, alpha-disubstituted amino acid

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Xaa is Gln or alpha, alpha-disubstituted amino acid

<400> 85

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Xaa Xaa Phe Val Xaa Trp Leu Met Asn Thr
20 25

<210> 86

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

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<400> 86

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 87
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (19)..(19)
<223> Xaa is Aib

<400> 87

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Xaa Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 88
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (20)..(20)
<223> Xaa is Aib

<400> 88

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Xaa Asp Phe Val Gln Trp Leu Met Asn Thr

20 25

<210> 89
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (21)..(21)
<223> Xaa is Aib

<400> 89

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Gln Xaa Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 90
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Xaa is Aib

<400> 90

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Xaa Trp Leu Met Asn Thr
20 25

<210> 91
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (20)..(20)

<223> Xaa is Aib

<400> 91

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Xaa Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 92
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Xaa is Aib

<400> 92

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Xaa Trp Leu Met Asn Thr
20 25

<210> 93
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (20)..(20)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Xaa is Aib

<400> 93

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Arg Ala Xaa Asp Phe Val Xaa Trp Leu Met Asn Thr
20 25

<210> 94
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (20)..(20)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (24)..(24)
<223> Xaa is Aib

<400> 94

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Xaa Asp Phe Val Xaa Trp Leu Met Asn Thr
20 25

<210> 95
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (29)..(29)
<223> AMIDATION

<400> 95

His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

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

<220>
<223> Synthetic peptide

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (29)..(29)
<223> AMIDATION

<400> 96

His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 97
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> Peptide 50

<220>
<221> MOD_RES
<222> (2)..(2)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (10)..(10)
<223> Acylated with a C16 fatty acyl group

<220>
<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Aib

<220>
<221> MOD_RES
<222> (29)..(29)
<223> AMIDATION

<400> 97

His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

<210> 98
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> Peptide 82

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Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
20 25

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His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
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1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
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1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
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1 5 10 15

Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
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<210> 104

<211> 29
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1 5 10 15

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Arg Arg Ala Gln Asp Phe Val Gln Trp Leu Met Asn Thr
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Arg Arg Ala Gln Asp Phe Val Cys Trp Leu Met Asn Thr
20 25

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<210> 111
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Arg Arg Ala Gln Asp Phe Val Cys Trp Leu Met Asn Thr
20 25

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1 5 10 15

Arg Arg Ala Gln Asp Phe Val Cys Trp Leu Met Asn Thr
20 25

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His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Xaa
1 5 10 15

Arg Arg Ala Gln Asp Phe Val Cys Trp Leu Met Asn Thr
20 25