

SEQUENCE LISTING

<110> Dimarchi, et al.

<120> GIP-BASED MIXED AGONISTS FOR TREATMENT OF METABOLIC DISORDERS AND OBESITY

<130> 31135/43978C

<160> 262

<170> PatentIn version 3.5

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<212> PRT

<213> Homo sapiens

<220>

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<223> Wild type glucagon

<400> 1

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
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<223> GLP-1(7-37)

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His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
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 <222> (30)..(30)
 <223> C-terminal amidation

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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

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 <222> (1)..(42)
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Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
 20 25 30

Lys Asn Asp Trp Lys His Asn Ile Thr Gln
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 <223> Lactam bridge between residues 16 and 20.

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

Ile His Gln Lys Glu Phe Ile Ala Trp Leu Met Asn Thr
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<223> Lactam bridge between residues 16 and 20.

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

Ile His Gln Lys Glu Phe Ile Ala Trp Leu Met Asn Thr
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<222> (12)..(16)

<223> Lactam bridge between residues 12 and 16.

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

Ile His Gln Lys Glu Phe Ile Ala Trp Leu Met Asn Thr

20

25

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His	Ser	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Tyr	Ser	Lys	Tyr	Leu	Asp	Glu
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Ile	His	Gln	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Leu	Ala	Gln
		20						25				

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

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

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1          5          10          15

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

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<223> Analog 84

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

Ile His Gln Lys Glu Phe Ile Cys Trp Leu Leu Ala Gln
          20          25

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1 5 10 15

Ile His Gln Lys Glu Phe Ile Cys Trp Leu Leu Ala Gln
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<223> Analog 92

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Lys His Gln Lys Glu Phe Ile Ala Trp Leu Leu Ala Gln
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<223> Lactam bridge between residues 16 and 20

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<222> (17)..(21)

<223> Lactam bridge between residues 17 and 21

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1 5 10 15

Lys His Gln Lys Glu Phe Ile Ala Trp Leu Leu Ala Gln
20 25

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His Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Glu
1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
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1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
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1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
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Tyr Ala Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Met Asp Glu
1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
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Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
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Lys Asn Trp Leu Lys His Asn Ile Thr Gln
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Tyr Xaa Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln
35 40

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<223> Analog 101

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Tyr Ala Pro Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
 20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln
 35 40

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 <223> Xaa is Aib

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Tyr Xaa Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Cys Trp Leu Leu Ala Gln Lys Gly Lys
 20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln
 35 40

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Tyr Ala Pro Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Cys Trp Leu Leu Ala Gln Lys Gly Lys
20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln
35 40

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Tyr Ala Pro Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Cys Trp Leu Leu Ala Gln Lys Gly Lys
20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln
35 40

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Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln
20 25

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1          5          10          15

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

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

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

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

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
          20          25

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1          5          10          15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
          20          25

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 1 5 10 15

 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
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 Xaa Ile Ser Asp Tyr Ser Ile Ala Met Asp Glu Ile His Gln Lys Asp
 1 5 10 15

 Phe Val Asn Trp Leu Leu Ala Gln
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Xaa Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu Ile His Gln Lys Asp
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Phe Val Asn Trp Leu Leu Ala Gln
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His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1          5          10          15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

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

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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1 5 10 15

Ile His Gln Lys Glu Phe Val Asn Trp Leu Leu Ala Gln
20 25

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Tyr Ser 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 Ala Trp Leu Met Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
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 1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
 20 25

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 1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln
20 25

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
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Ser Gly Ala Pro Pro Pro Ser
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<223> Analog 128

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1 5 10 15

Ile His Gln Lys Asp Phe Ile Ala Trp Leu Met Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
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<223> Analog 129

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

Ile His Gln Lys Asp Phe Ile Ala Trp Leu Met Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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<223> Analog 139

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Tyr Ser 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 Ala Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Met Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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Tyr Ala Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Met Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
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Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
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Arg Arg Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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Tyr Ala Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Met Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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Tyr Ala Gln Gly Thr Phe Ile Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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<220>
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<220>
<221> MISC_FEATURE
<223> Analog 146

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<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 49

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 50
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 147

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 50

Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 51
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 148

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 51

Tyr Ser Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 52
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 149

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 52

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 53
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 150

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 53

Tyr Ser Gln Gly Thr Phe Ile Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 54
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 151

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 54

Tyr Ser 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 Ala Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 55
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 152

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 55

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 56
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 154

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Xaa is hippuric acid

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 56

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 57

<211> 39

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Analog 155

<220>

<221> MISC_FEATURE

<222> (12)..(16)

<223> Lactam bridge between residues 12 and 16

<400> 57

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 58

<211> 39

<212> PRT

<213> Artificial sequence

<220>

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<220>

<221> MISC_FEATURE

<223> Analog 156

<220>

<221> MISC_FEATURE

<222> (20)..(24)

<223> Lactam bridge between residues 20 and 24

<400> 58

Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Glu Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 59

<211> 39

<212> PRT

<213> Artificial sequence

<220>

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<220>

<221> MISC_FEATURE

<223> Analog 157

<220>

<221> MISC_FEATURE

<222> (24)..(28)

<223> Lactam bridge between residues 24 and 28

<400> 59

Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Glu Trp Leu Leu Lys Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 60

<211> 39

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Analog 158

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20

 <400> 60

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

Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 61
 <211> 39
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> Analog 162

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

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20

 <400> 61

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

Gln Ala Val Lys Glu Phe Val Asn Trp Leu Ile Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

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

 <220>
 <223> Synthetic polypeptide

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<220>
<221> MISC_FEATURE
<223> Analog 163

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 62

Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1          5          10          15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly
          20          25

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

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Analog 164

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 63

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly
          20          25

<210> 64
<211> 40
<212> PRT
<213> Artificial sequence

<220>
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<221> MISC_FEATURE

<223> Analog 165

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> Lactam bridge between residues 16 and 20

<400> 64

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 65

<211> 40

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Analog 166

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is d-alanine

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> Lactam bridge between residues 16 and 20

<400> 65

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 66
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 167

<220>
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<222> (17)..(20)
<223> Lactam bridge between residues 17 and 20

<400> 66

Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Glu Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 67
<211> 39
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 168

<220>
<221> MISC_FEATURE
<222> (18)..(21)
<223> Lactam bridge between residues 18 and 21

<400> 67

Tyr Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Lys Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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<210> 68
<211> 29
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic polypeptide

<220>
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<223> Analog 169

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 68

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

Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Leu Ala Gly
          20          25

<210> 69
<211> 40
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Analog 170

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> PEG (40kDa) covalently attached to Cysteine

<400> 69

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

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

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> Analog 172

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

<220>
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 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20

<220>
 <221> MISC_FEATURE
 <222> (24)..(24)
 <223> PEG (40kDa) covalently attached to Cysteine

<400> 70

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

Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Leu Ala Gly
 20 25

<210> 71
 <211> 40
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> Analog 174

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 71

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1          5          10          15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Cys
          35          40

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

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 175

<220>
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<223> Xaa is Aib

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<220>
<221> MISC_FEATURE
<222> (24)..(24)
<223> PEG (40kDa) covalently attached to Cysteine

<400> 72

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

Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser

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35

<210> 73
<211> 40
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 176

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 73

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

Gln	Ala	Ala	Lys	Glu	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gly	Gly	Pro	Ser
			20					25					30		

Ser	Gly	Ala	Pro	Pro	Pro	Ser	Cys
		35					40

<210> 74
<211> 29
<212> PRT
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<220>
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<223> Analog 177

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<400> 74

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

Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Leu Ala Gly
20 25

<210> 75

<211> 40

<212> PRT

<213> Artificial sequence

<220>

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<220>

<221> MISC_FEATURE

<223> Analog 178

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> Lactam bridge between residues 16 and 20

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> PEG (40kDa) covalently attached to Cysteine

<400> 75

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 76

<211> 29

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Analog 179
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 <222> (2)..(2)
 <223> Xaa is Aib
 <220>
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 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20
 <220>
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 <222> (24)..(24)
 <223> PEG (40kDa) covalently attached to Cysteine
 <400> 76
 Tyr Xaa Gln Gly Thr Phe Ile Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Leu Ala Gly
 20 25
 <210> 77
 <211> 40
 <212> PRT
 <213> Artificial sequence
 <220>
 <223> Synthetic polypeptide
 <220>
 <221> MISC_FEATURE
 <223> Analog 182
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 <221> MOD_RES
 <222> (2)..(2)
 <223> Xaa is Aib
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 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20
 <220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> PEG (40kDa) covalently attached to Cysteine
 <400> 77
 Tyr Xaa Gln Gly Thr Phe Ile Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

<210> 78
 <211> 29
 <212> PRT
 <213> Artificial sequence
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<220>
 <221> MISC_FEATURE
 <223> Analog 186

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 <222> (2)..(2)
 <223> Xaa is Aib

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20

<220>
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 <222> (24)..(24)
 <223> PEG (40kDa) covalently attached to Cysteine

<400> 78

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

Gln Ala Ala Lys Glu Phe Val Cys Trp Leu Met Asn Gly
 20 25

<210> 79
 <211> 39
 <212> PRT
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<220>
 <221> MISC_FEATURE
 <223> Analog 191

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

<400> 79

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 80
<211> 34
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Analog 192

<400> 80

Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu Gln Ala Ala Lys Glu
1 5 10 15

Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro
20 25 30

Pro Ser

<210> 81
<211> 38
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 194

<220>
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<222> (1)..(1)
<223> Xaa is Aib

<400> 81

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

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

Gly Ala Pro Pro Pro Ser
35

<210> 82
<211> 26
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> MISC_FEATURE
<223> Analog 197

<220>
<221> MISC_FEATURE
<222> (13)..(17)
<223> Lactam bridge between residues 13 and 17

<400> 82

Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu Gln Ala Ala
1 5 10 15

Lys Glu Phe Val Asn Trp Leu Leu Ala Gly
20 25

<210> 83
<211> 28
<212> PRT
<213> Artificial sequence

<220>
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<220>
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<223> Analog 198

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<222> (1)..(1)
<223> Xaa is Aib

<220>
<221> MISC_FEATURE
<222> (15)..(19)
<223> Lactam bridge between residues 15 and 19

<400> 83

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

Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly
 20 25

<210> 84
 <211> 40
 <212> PRT
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<220>
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 <223> Analog 199

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

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> Lactam bridge between residues 16 and 20

<400> 84

Tyr Xaa Gln Gly Thr Phe Val Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

<210> 85
 <211> 40
 <212> PRT
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 <220>
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<220>
 <221> MISC_FEATURE
 <223> Analog 200

<220>
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 <223> Xaa is Aib

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)

<223> Lactam bridge between residues 16 and 20

<220>

<221> MOD_RES

<222> (27)..(27)

<223> Xaa is Nle

<400> 85

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Xaa Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 86

<211> 39

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Analog 201

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<400> 86

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

Glu Ala Val Arg Leu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 87

<211> 40

<212> PRT

<213> Artificial sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE
<223> Analog 202

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

<220>
<221> MISC_FEATURE
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<223> PEG (40kDa) covalently attached to Cysteine

<400> 87

Tyr Xaa Gln Gly Thr Phe Val Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 88
<211> 40
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Analog 203

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge between residues 16 and 20

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)

<223> PEG (40kDa) covalently attached to Cysteine

<400> 88

Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Xaa Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 89

<211> 40

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<223> Xaa is Aib

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<223> Lactam bridge between residues 16 and 20

<400> 89

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Arg Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 90

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<400> 90

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Arg Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 91
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<400> 91

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Lys Gly Lys
20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln Cys
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<400> 92

Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Lys Gly Lys
 20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln Cys
 35 40

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<400> 93

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

Lys Asn Trp Leu Lys His Asn Ile Thr Gln Cys
 35 40

<210> 94
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<400> 94

Tyr Xaa Gln Gly Thr Phe Thr Ser Glu Tyr Ser Lys Tyr Leu Asp Glu
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

<210> 95
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Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser
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<400> 96

Xaa Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser
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<400> 97

Lys Arg Asn Arg Asn Asn Ile Ala
1 5

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<400> 98

Lys Arg Asn Arg

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<210> 99

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<400> 99

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1

5

10

15

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser

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Ser Gly Ala Pro Pro Pro Ser Cys

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<400> 100

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

<210> 101
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<221> MISC_FEATURE
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<220>
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 <223> C-terminal amidation

<400> 101

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 102
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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 103
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<220>
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 <222> (40)..(40)
 <223> 18 Carbon fatty acyl group covalently attached to Lysine

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<400> 103

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

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<210> 104
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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
1          5          10          15

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
35          40

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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 107

<211> 40

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<223> C-terminal amidation

<400> 107

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 108

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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Cys
          35          40

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 110
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1 5 10 15

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly
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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 112
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<400> 112

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 1 5 10 15

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly
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<210> 113
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<400> 113

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

Gln Ala Ala Xaa Glu Phe Val Lys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 114
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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
1          5          10          15

Gln Ala Ala Xaa Glu Phe Val Lys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser
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<221> MISC_FEATURE
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<400> 115

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

Gln Ala Ala Xaa Glu Phe Val Lys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 116
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1 5 10 15

Gln Ala Ala Xaa Glu Phe Val Lys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

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<212> PRT

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 <400> 117

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 118
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<400> 118

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Lys Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
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<210> 119
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<400> 119

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20 25 30

Ser Gly Ala Pro Pro Pro Ser
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<210> 120
<211> 39
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
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<400> 121

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

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 <400> 122

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

 Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

 Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

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 <400> 123

 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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 Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 124
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<400> 124

Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

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<400>  125

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
      20      25      30

Ser Gly Ala Pro Pro Pro Ser Lys
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Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

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<400> 127

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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly
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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly
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<211> 29

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<223> C-terminal amidation

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Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly
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<211> 29

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<223> C-terminal amidation

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly
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<223> 14 Carbon fatty acyl group covalently attached to Lysine

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<400> 132

Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys

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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
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<220>
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<400> 137

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser

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Ser Gly Ala Pro Pro Pro Ser Lys
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<222> (24)..(24)

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<400> 138

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 139

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1          5          10          15

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
1          5          10          15

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Cys
          35          40

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

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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 142
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<400> 142

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Met Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 143
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<400> 143

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Met Asn Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

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<400> 144

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
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<400> 145

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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Ser Gly Ala Pro Pro Pro Ser Lys
35 40

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Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
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Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

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<220>
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<400> 147

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

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 <400> 148

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 Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

 Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

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 <400> 149

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

 Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

 Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

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<210> 150
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<400> 150

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20          25          30

Ser Gly Ala Pro Pro Pro Ser Cys
35          40

<210> 151
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<220>
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<223> C-terminal amidation

<400> 151

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

<210> 152
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<220>
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<400> 152

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 153

<211> 40

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<223> Xaa is Aib

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<222> (24)..(24)

<223> PEG (40kDa) covalently attached to Cysteine

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 153

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 154

<211> 40

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<212>  PRT
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<222>  (40)..(40)
<223>  Xaa is d-Lysine

<220>
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<222>  (40)..(40)
<223>  14 Carbon fatty acyl group covalently attached to d-Lysine

<220>
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<222>  (40)..(40)
<223>  C-terminal amidation

<400>  154

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
          35          40

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<210>  155
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<220>
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<400> 155

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
          35          40

<210> 156
<211> 40
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<220>

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<221> MOD_RES
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 <220>
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 <223> 14 Carbon fatty acyl group covalently attached to Lysine

 <220>
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 <222> (40)..(40)
 <223> C-terminal amidation

 <400> 156

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

 Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

 Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

 <210> 157
 <211> 40
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 <220>
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 <220>
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<222> (40)..(40)
<223> C-terminal amidation

<400> 157

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 158
<211> 39
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<223> Xaa is Aib

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<223> C-terminal amidation

<400> 158

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 159
<211> 39
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<223> C-terminal amidation

<400> 159

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 160
<211> 41
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<220>
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<220>
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<220>
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<222>  (41)..(41)
<223>  C-terminal amidation

<400>  160

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
      20      25      30

Ser Gly Ala Pro Pro Pro Ser Lys Cys
      35      40

<210>  161
<211>  41
<212>  PRT
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<220>
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<220>
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<223>  Xaa is Aib

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<223>  C-terminal amidation

<400>  161

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
      20      25      30

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Ser Gly Ala Pro Pro Pro Ser Lys Cys
 35 40

<210> 162
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 <223> mt-341

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 <223> Xaa is Aib

<220>
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 <223> PEG (40kDa) covalently attached to Cysteine

<220>
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 <222> (39)..(39)
 <223> C-terminal amidation

<400> 162

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
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<210> 163
 <211> 41
 <212> PRT
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<220>
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<222> (40)..(40)
<223> 14 Carbon fatty acyl group covalently attached to Lysine

<220>
<221> MISC_FEATURE
<222> (41)..(41)
<223> PEG (40kDa) covalently attached to Cysteine

<220>
<221> MISC_FEATURE
<222> (41)..(41)
<223> C-terminal amidation

<400> 163

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys Cys
          35          40

<210> 164
<211> 41
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<220>
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<223> PEG (40kDa) covalently attached to Cysteine

<220>
<221> MISC_FEATURE
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<223> C-terminal amidation

<400> 164

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys Cys
          35          40

<210> 165
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<220>
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<222> (40)..(40)
<223> C-terminal amidation

<400> 165

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 Gly Gly Pro Ser

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20

25

30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 166

<211> 40

<212> PRT

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<223> Xaa is Aib

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<222> (24)..(24)

<223> PEG (40kDa) covalently attached to Cysteine

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> 14 Carbon fatty acyl group covalently attached to Lysine

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 166

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 167

<211> 40

<212> PRT

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<220>
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<400> 167

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 168
<211> 40
<212> PRT
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<223> Xaa is Aib

<220>
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<222> (40)..(40)

<223> C-terminal amidation

<400> 168

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

Gln Ala Ala Gln Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 169

<211> 40

<212> PRT

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<223> Lactam bridge between residues 12 and 16

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<220>

<221> MOD_RES

<222> (40)..(40)

<223> C-terminal amidation

<400> 169

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 170
<211> 10
<212> PRT
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<220>
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<400> 170

Gly Pro Ser Ser Gly Ala Pro Pro Pro Lys
1 5 10

<210> 171
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<223> Xaa is Gly or a small, aliphatic or non-polar or slightly polar amino acid

<400> 171

Xaa Gly Pro Ser Ser Gly Ala Pro Pro Pro Lys
1 5 10

<210> 172
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<212> PRT
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<220>
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<220>
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<222> (1)..(1)
<223> Xaa is Gly or a small, aliphatic or non-polar or slightly polar amino acid

<400> 172

Xaa Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser Lys
1 5 10

<210> 173
<211> 40
<212> PRT
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<223> C-terminal amidation

<400> 173

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20          25          30

Ser Gly Ala Pro Pro Pro Ser Cys
35          40

<210> 174
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<220>
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 <222> (40)..(40)
 <223> C-terminal amidation

<400> 174

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

Gln Ala Ala Gln Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

<210> 175
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 <212> PRT
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<220>
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 <223> mt-250

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 <222> (20)..(20)
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<220>
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 <222> (40)..(40)
 <223> C-terminal amidation

<400> 175

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser

20

25

30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

<210> 176

<211> 40

<212> PRT

<213> Artificial Sequence

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<223> Synthetic polypeptide

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<221> MISC_FEATURE

<223> mt-251

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<221> MOD_RES

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<223> Xaa is Aib

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<221> MOD_RES

<222> (20)..(20)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 176

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
 35 40

<210> 177

<211> 29

<212> PRT

<213> Artificial Sequence

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<221> MISC_FEATURE

<223> mt-258

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<223> Xaa is Aib

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<223> Xaa is Aib

<220>
<221> MISC_FEATURE
<222> (29)..(29)
<223> C-terminal amidation

<400> 177

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly
20 25

<210> 178
<211> 29
<212> PRT
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<220>
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<223> Xaa is Aib

<400> 178

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly
20 25

<210> 179
<211> 30

<212> PRT
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 <220>
 <223> Synthetic polypeptide

 <220>
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 <223> Xaa is Aib

 <220>
 <221> MISC_FEATURE
 <222> (24)..(24)
 <223> PEG (40kDa) covalently attached to Cysteine

 <400> 179

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

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

<210> 180
 <211> 42
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<400> 180

 Tyr Ala Pro Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
 1 5 10 15

Ile His Gln Gln Asp Phe Val Xaa Trp Leu Leu Ala Gln Lys Gly Lys
 20 25 30

Lys Asn Trp Leu Lys His Asn Ile Thr Gln
 35 40

<210> 181
 <211> 40
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<223> Lactam bridge between residues 16 and 20

<220>
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<223> Substituted amino acid covalently linked to hydrophilic group

<400> 181

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
          35          40

<210> 182
<211> 29
<212> PRT
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<223> Substituted amino acid covalently linked to hydrophilic group

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<221> misc_feature

<222> (29)..(29)

<223> Xaa can be any naturally occurring amino acid

<400> 182

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

Gln Ala Ala Lys Glu Phe Val Xaa Trp Leu Leu Ala Xaa
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<210> 183

<211> 39

<212> PRT

<213> Artificial Sequence

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<220>

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<223> Substituted amino acid covalently linked to hydrophilic group

<400> 183

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

Gln Ala Ala Lys Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
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<210> 184

<211> 40

<212> PRT

<213> Artificial Sequence

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<223> Substituted amino acid covalently linked to hydrophilic group

<400> 184

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
1          5          10          15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
      20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
      35          40

<210> 185
<211> 29
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<223> Substituted amino acid covalently linked to hydrophilic group

<400> 185

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

Gln Ala Ala Lys Glu Phe Val Xaa Trp Leu Leu Ala Gly
20 25

<210> 186

<211> 40

<212> PRT

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<220>

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<220>

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<223> Substituted amino acid covalently linked to hydrophilic group

<400> 186

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 187

<211> 29

<212> PRT

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 <223> Substituted amino acid covalently linked to hydrophilic group

 <400> 187

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

Gln Ala Ala Lys Glu Phe Val Xaa Trp Leu Met Asn Gly
 20 25

<210> 188
 <211> 40
 <212> PRT
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<220>
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 <223> SEQ ID NO: 87

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 <223> Substitute amino acid covalently linked to hydrophilic group

<400> 188

Tyr Xaa Gln Gly Thr Phe Val Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
 1 5 10 15

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 189
<211> 40
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<220>
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<400> 189

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Xaa Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 190
<211> 40
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetic polypeptide

Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu
 1 5 10 15

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

Lys Asn Trp Leu Lys His Asn Ile Thr Gln Xaa
 35 40

<210> 192
 <211> 40
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 <223> Substituted amino acid covalently linked to hydrophilic group

<220>
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 <223> C-terminal amidation

<400> 192

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 193
 <211> 40
 <212> PRT
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<220>
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<223> C-terminal amidation

<400> 193

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

<210> 194
<211> 40
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 <220>
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 <223> C-terminal amidation
 <400> 194
 Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40
 <210> 195
 <211> 40
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 <223> Xaa is Aib
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 group
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 <222> (40)..(40)

<223> C-terminal amidation

<400> 195

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 196

<211> 40

<212> PRT

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<223> Substituted amino acid covalently linked to hydrophilic group

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 196

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

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<210> 197
<211> 39
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<220>
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<223> C-terminal amidation

<400> 197

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
20          25          30

Ser Gly Ala Pro Pro Pro Ser
35

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<210> 198
<211> 39
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 <222> (39)..(39)
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 <400> 198
 Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ile Tyr Leu Asp Lys
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
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 <210> 199
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 <223> C-terminal amidation

<400> 199

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 200

<211> 29

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<223> Xaa is Aib

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<223> Substituted amino acid covalently linked to hydrophilic group

<220>

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<222> (29)..(29)

<223> C-terminal amidation

<400> 200

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly
20 25

<210> 201

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<212> PRT

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<222> (29)..(29)

<223> C-terminal amidation

<400> 201

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly
20 25

<210> 202

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<400> 202

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 203
 <211> 40
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<220>
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<400> 203

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

<210> 204
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<400> 204

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 205
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<220>
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<223> C-terminal amidation

<400> 205

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
      20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
      35          40

<210> 206
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<220>
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<400> 206

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 207
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<220>
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<400> 207

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Met Asn Gly Gly Pro Ser

20

25

30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 208

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<223> Substituted amino acid covalently linked to hydrophilic group

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<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>

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<223> C-terminal amidation

<400> 208

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Met Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 209

<211> 40

<212> PRT

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<223> C-terminal amidation

<400> 209

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
          35          40

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

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 148

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

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

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<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 210

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

Gln	Ala	Ala	Xaa	Glu	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gly	Gly	Pro	Ser
			20					25					30		

Ser	Gly	Ala	Pro	Pro	Pro	Ser	Xaa
			35				40

<210> 211

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> SEQ ID NO: 152

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>

<221> MOD_RES

<222> (20)..(20)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 211

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

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

<220>
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<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 152

<220>
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<223> Xaa is Aib

<220>
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<220>
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<222> (40)..(40)
<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 212

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
35 40

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

<220>
<223> Synthetic polypeptide

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<220>
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<223> SEQ ID NO: 153

<220>
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<223> Xaa is Aib

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

<220>
<221> MISC_FEATURE
<222> (24)..(24)
<223> Substituted amino acid covalently linked to hydrophilic group

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 213

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
35          40

<210> 214
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<223> SEQ ID NO: 154

<220>
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<223> Xaa is Aib

<220>
<221> MOD_RES
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<223> Xaa is Aib

<220>

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<221> MISC_FEATURE
 <222> (40)..(40)
 <223> Substituted amino acid covalently linked to acyl or alkyl group

<220>
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 <222> (40)..(40)
 <223> C-terminal amidation

<400> 214

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

Gln Ala Ala Xaa Glu Phe Val Cys Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 215
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 156

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

<220>
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 <223> Xaa is Aib

<220>
 <221> MISC_FEATURE
 <222> (24)..(24)
 <223> Substituted amino acid covalently linked to hydrophilic group

<220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> Substituted amino acid covalently linked to acyl or alkyl group

<220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> C-terminal amidation

<400> 215

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 216
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 157

<220>
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 <223> Xaa is Aib

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

<220>
 <221> MISC_FEATURE
 <222> (24)..(24)
 <223> Substituted amino acid covalently linked to hydrophilic group

<220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> C-terminal amidation

<400> 216

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 217
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

 <220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 235

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

 <220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Substituted amino acid covalently linked to acyl or alkyl group

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

 <220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> C-terminal amidation

 <400> 217

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

Gln	Ala	Ala	Xaa	Glu	Phe	Val	Cys	Trp	Leu	Leu	Ala	Gly	Gly	Pro	Ser
			20					25					30		

Ser	Gly	Ala	Pro	Pro	Pro	Ser
			35			

<210> 218
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 160

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

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

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<223>  Xaa is Aib

<220>
<221>  MISC_FEATURE
<222>  (40)..(40)
<223>  Substituted amino acid covalently linked to acyl or alkyl group

<220>
<221>  MISC_FEATURE
<222>  (41)..(41)
<223>  C-terminal amidation

<400>  218

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa Cys
          35          40

<210>  219
<211>  39
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic polypeptide

<220>
<221>  MISC_FEATURE
<223>  SEQ ID NO: 162

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

<220>
<221>  MISC_FEATURE
<222>  (10)..(10)
<223>  Substituted amino acid covalently linked to acyl or alkyl group

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

<220>
<221>  MISC_FEATURE
<222>  (24)..(24)
<223>  Substituted amino acid covalently linked to hydrophilic group

<220>
<221>  MISC_FEATURE
<222>  (39)..(39)
<223>  C-terminal amidation

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<400> 219

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 220

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> SEQ ID NO: 163

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>

<221> MOD_RES

<222> (20)..(20)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>

<221> MISC_FEATURE

<222> (41)..(41)

<223> Substituted amino acid covalently linked to hydrophilic group

<220>

<221> MISC_FEATURE

<222> (41)..(41)

<223> C-terminal amidation

<400> 220

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa Xaa

35

40

<210> 221
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 164

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

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

<220>
 <221> MISC_FEATURE
 <222> (41)..(41)
 <223> Substituted amino acid covalently linked to hydrophilic group

<220>
 <221> MISC_FEATURE
 <222> (41)..(41)
 <223> C-terminal amidation

<400> 221

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys Xaa
 35 40

<210> 222
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 165

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 222

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 Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
          35          40

<210> 223
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 166

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

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

<220>
<221> MISC_FEATURE
<222> (24)..(24)
<223> Substituted amino acid covalently linked to hydrophilic group

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Substituted amino acid covalently linked to acyl or alkyl group

<220>

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<221> MISC_FEATURE
 <222> (40)..(40)
 <223> C-terminal amidation

<400> 223

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

Gln Ala Ala Xaa Glu Phe Val Xaa Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

<210> 224
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synethic polypeptide

<220>
 <221> MISC_FEATURE
 <223> SEQ ID NO: 173

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

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

<220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> Substituted amino acid covalently linked to hydrophilic group

<220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> C-terminal amidation

<400> 224

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Xaa
 35 40

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<210> 225
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> SEQ ID NO: 174

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

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Substituted amino acid covalently linked to hydrophilic group

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 225

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

Gln Ala Ala Gln Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20          25          30

Ser Gly Ala Pro Pro Pro Ser Xaa
35          40

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<210> 226
<211> 30
<212> PRT
<213> Artificial Sequene

<220>
<223> Synthetic polypeptide

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

<220>

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<221> MISC_FEATURE
 <222> (24)..(24)
 <223> Substituted amino acid covalently linked to hydrophilic group
 <400> 226

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

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

<210> 227
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

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

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

<220>
 <221> MISC_FEATURE
 <222> (29)..(29)
 <223> C-terminal amidation

<400> 227
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Lys
 1 5 10 15

Gln	Ala	Ala	Xaa	Glu	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gly
			20					25				

<210> 228
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> Xaa is D-Ser, DAla, Val, Gly, N-Methyl Ser, N-Methyl Ala, or Aib

<220>

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<221> MOD_RES
<222> (16)..(16)
<223> Xaa is Lys, Glu, Ser, Orn, Dab, Aib or any alpha,
alpha-disubstituted amino acid

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

<220>
<221> MOD_RES
<222> (27)..(27)
<223> Xaa is Ile, Leu, or Nle

<220>
<221> MOD_RES
<222> (28)..(28)
<223> Xaa is Ala or Gly

<220>
<221> MOD_RES
<222> (29)..(29)
<223> Xaa is Thr, Ala, or Gly

<220>
<221> MISC_FEATURE
<222> (29)..(29)
<223> C-terminal amidation

<400> 228

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Xaa Xaa Xaa
          20          25

<210> 229
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

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

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

<220>
<221> MISC_FEATURE
<222> (29)..(29)
<223> C-terminal amidation

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<400> 229

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

Arg Arg Ala Xaa Asp Phe Val Gln Trp Leu Leu Ala Gly
20 25

<210> 230

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is D-Ser, DAla, Val, Gly, N-Methyl Ser, N-Methyl Ala, or Aib

<220>

<221> MOD_RES

<222> (16)..(16)

<223> Xaa is Lys, Glu, Ser, Orn, Dab, Aib or any alpha,
alpha-disubstituted amino acid

<220>

<221> MOD_RES

<222> (20)..(20)

<223> Xaa is any alpha, alpha-disubstituted amino acid

<220>

<221> MOD_RES

<222> (27)..(27)

<223> Xaa is Ile, Leu, or Nle

<220>

<221> MOD_RES

<222> (28)..(28)

<223> Xaa is Ala or Gly

<220>

<221> MOD_RES

<222> (29)..(29)

<223> Xaa is Thr, Ala, or Gly

<220>

<221> MOD_RES

<222> (29)..(29)

<223> C-terminal amidation

<400> 230

Tyr Xaa 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 Xaa Xaa Xaa
20 25

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<210> 231
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Mt-354

<220>
<221> MISC_FEATURE
<223> Homodimer

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

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> 14 Carbon fatty acyl group covalently bound to Lysine

<220>
<221> MOD_RES
<222> (40)..(40)
<223> C-terminal amidation

<220>
<221> DISULFID
<222> (41)..(41)
<223> Disulfide bond formed with Cys residue of a second peptide having
the same structure.

<400> 231

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys Cys
          35          40

<210> 232
<211> 40
<212> PRT
<213> Artificial Sequence

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<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Mt-356

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

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 232

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Met Asn Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

<210> 233
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Mt-357

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

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)

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<223> C-terminal amidation

<400> 233

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 234

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Mt-358

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>

<221> MOD_RES

<222> (20)..(20)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> 16 Carbon fatty acyl group covalently bound to Lysine

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> C-terminal amidation

<400> 234

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

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<210> 235
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Mt-367

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

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> 16 Carbon fatty acyl group covalently bound to Lysine via a
gamma-Glu-gamma-Glu spacer

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 235

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
          20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
          35          40

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<210> 236
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Mt-368

<220>
<221> MOD_RES

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<222> (2)..(2)
<223> Xaa is Aib

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

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> 16 Carbon fatty acyl group covalently bound to Lysine via a
gamma-Glu-gamma-Glu spacer

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> C-terminal amidation

<400> 236

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
35 40

<210> 237
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<220>
<221> MISC_FEATURE
<223> Mt-369

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

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> 16 Carbon fatty acyl group covalently bound to Lysine via
gamma-Glu-gamma-Glu spacer

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

<220>

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<221> MISC_FEATURE
 <222> (40)..(40)
 <223> C-terminal amidation

<400> 237

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

<210> 238
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> Mt-376

<220>
 <221> MISC_FEATURE
 <223> Homodimer

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

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

<220>
 <221> MISC_FEATURE
 <222> (40)..(40)
 <223> 14 Carbon fatty acyl group covalently bound to Lysine

<220>
 <221> MISC_FEATURE
 <222> (41)..(41)
 <223> C-terminal amidation

<220>
 <221> MISC_FEATURE
 <222> (41)..(41)
 <223> Cys residue covalently attached to 20 kDa PEG which is in turn covalently attached to a Cys residue of a second peptide having the same structure

<400> 238

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys Cys
 35 40

<210> 239

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MISC_FEATURE

<223> Mt-377

<220>

<221> MISC_FEATURE

<223> homodimer

<220>

<221> MOD_RES

<222> (2)..(2)

<223> Xaa is Aib

<220>

<221> MOD_RES

<222> (20)..(20)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (40)..(40)

<223> 14 Carbon fatty acyl group covalently bound to Lysine

<220>

<221> MISC_FEATURE

<222> (41)..(41)

<223> PEG (5kDa) covalently bound to Cysteine

<220>

<221> MISC_FEATURE

<222> (41)..(41)

<223> C-terminal amidation

<220>

<221> MISC_FEATURE

<222> (41)..(41)

<223> Cys residue covalently attached to 5 kDa PEG which is in turn covalently attached to a Cys residue of a second peptide having the same structure

<400> 239

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

Gln Ala Ala Xaa Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser Lys Cys
 35 40

<210> 240
 <211> 29
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> Peptide J

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

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

<400> 240

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> 241
 <211> 29
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Synthetic polypeptide

<220>
 <221> MISC_FEATURE
 <223> Peptide K

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

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

<400> 241

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> 242
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

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

<400> 242

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> 243
<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> 243

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

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

<210> 244
<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> (27)..(27)
<223> Xaa is Nle

<400> 244

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> 245
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

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

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

<400> 245

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> 246

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

<220>
<223> Synthetic polypeptide

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

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

<400> 246

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> 247
<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> 247

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> 248
<211> 29
<212> PRT
<213> Artificial Sequence

<220>

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<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> 248

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> 249

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MOD_RES

<222> (16)..(16)

<223> Xaa is Aib

<400> 249

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> 250

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MOD_RES

<222> (3)..(3)

<223> Xaa is Acetyldiaminobutanoic acid

<220>

<221> MOD_RES

<222> (16)..(16)
 <223> Xaa is Aib
 <400> 250

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> 251
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

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

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

<400> 251
 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> 252
 <211> 29
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 252
 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> 253
 <211> 29
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MOD_RES

<222> (3)..(3)

<223> Xaa is Acetyldiaminobutanoic acid

<220>

<221> MOD_RES

<222> (16)..(16)

<223> Xaa is Aib

<400> 253

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> 254

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<220>

<221> MOD_RES

<222> (3)..(3)

<223> Xaa is Acetyldiaminobutanoic acid

<220>

<221> MOD_RES

<222> (16)..(16)

<223> Xaa is Aib

<220>

<221> MISC_FEATURE

<222> (39)..(39)

<223> C-terminal amidation

<400> 254

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				

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<210> 255
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

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

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

<400> 255

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> 256
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

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

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

<400> 256

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> 257

<400> 257
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<210> 258

<400> 258
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<210> 259
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> mt-225

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

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> Lactam bridge links Glu16 and Lys20

<220>
<221> MOD_RES
<222> (40)..(40)
<223> Epsilon amine of Lys is attached to Ala-Ac-Cys(PEG), wherein the
      Ac-Cys(PEG) is a Cys residue comprising an alpha amino group
      capped with an acetyl group (CH3CO) and comprising a 40 kDa PEG
      covalently attached to its side chain

<400> 259

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

Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
      20          25          30

Ser Gly Ala Pro Pro Pro Ser Lys
      35          40

<210> 260
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<220>
<221> MISC_FEATURE
<223> mt-227

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

 <220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> Lactam bridge links Glu16 and Lys20

 <220>
 <221> MOD_RES
 <222> (40)..(40)
 <223> Epsilon amine of Lys is attached to Arg-Ac-Cys(PEG), wherein the
 Ac-Cys(PEG) is a Cys residue comprising an alpha amino group
 capped with an acetyl group (CH3CO) and comprising a 40 kDa PEG
 covalently attached to its side chain

 <400> 260

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

 Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

 Ser Gly Ala Pro Pro Pro Ser Lys
 35 40

 <210> 261
 <211> 40
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic peptide

 <220>
 <221> MISC_FEATURE
 <223> mt-294

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

 <220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> Lactam bridge links Glu16 and Lys20

 <220>
 <221> MOD_RES
 <222> (40)..(40)
 <223> Cys-PEG covalently linked via thioether linkage

 <400> 261

 Tyr Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Tyr Leu Asp Glu

1	5	10	15
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Gln Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 262
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

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

<400> 262

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

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

Ser Gly Ala Pro Pro Pro Ser Lys
35 40