

SEQUENCE LISTING

<110> Eli Lilly and Company

<120> METHODS OF MAKING INCRETIN ANALOGS

<130> X22477

<150> US 62/888,756

<151> 2019-08-19

<160> 62

<170> PatentIn version 3.5

<210> 1

<211> 42

<212> PRT

<213> Homo sapiens

<400> 1

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

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
35 40

<210> 2

<211> 30

<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (30)..(30)

<223> AMIDATION

<400> 2

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

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

<210> 3

<211> 29

<212> PRT

<213> Homo sapiens

<400> 3

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

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

<210> 4
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is L or alpha-Methyl-L

<220>
 <221> MISC_FEATURE
 <222> (17)..(17)
 <223> Xaa at position 17 is any amino acid with a functional group available for conjugation, and the functional group is conjugated to a C16-C22 fatty acid

<220>
 <221> MISC_FEATURE
 <222> (19)..(19)
 <223> Xaa at position 19 is Q or A

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Aib, alpha-Methyl-K, Q or H

<220>
 <221> MISC_FEATURE
 <222> (28)..(28)
 <223> Xaa at position 28 is E or A

<220>
 <221> MISC_FEATURE
 <222> (29)..(29)
 <223> Xaa at position 29 is G or Aib

<220>
 <221> MISC_FEATURE
 <222> (34)..(34)
 <223> Xaa at position 34 is G or Aib

<220>
 <221> MISC_FEATURE
 <222> (39)..(39)
 <223> The C-terminal amino acid is optionally amidated

<400> 4

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

Xaa Ala Xaa Xaa Ala Phe Ile Glu Tyr Leu Leu Xaa Xaa Gly Pro Ser
 20 25 30

Ser Xaa Ala Pro Pro Pro Ser
 35

<210> 5
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

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

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-Methyl-L

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Aib

<400> 5

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

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

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 6
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-Methyl-L

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to
 the epsilon-amino group of the K side-chain with
 (2-[2-(2-Amino-ethoxy)-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H

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

<223> Xaa at position 20 is Aib

<220>

<221> MOD_RES

<222> (39)..(39)

<223> Ser at position 39 is amidated as a C-terminal primary amide

<400> 6

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

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

Ser Gly Ala Pro Pro Pro Ser
35

<210> 7

<211> 10

<212> PRT

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<220>

<221> MOD_RES

<222> (3)..(3)

<223> The sidechain of serine is protected by t-butyl

<220>

<221> MOD_RES

<222> (4)..(4)

<223> The sidechain of serine is protected by t-butyl

<220>

<221> MOD_RES

<222> (10)..(10)

<223> The sidechain of serine is protected by t-butyl

<220>

<221> MOD_RES

<222> (10)..(10)

<223> Ser at position 10 is amidated as a C-terminal primary amide

<400> 7

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

<210> 8

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<400> 8

Phe Ile Glu Tyr Leu Leu Glu Gly
 1 5

<210> 9
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of lysine is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C H₂)₁₈-CO₂-(t-butyl).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is Aib

<400> 9

Asp Lys Lys Ala Gln Xaa Ala
 1 5

<210> 10
 <211> 14
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 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Boc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of threonine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of threonine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (8)..(8)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (9)..(9)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (11)..(11)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-Methyl-Leu

<400> 10

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

<210> 11
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (8)..(8)
 <223> The sidechain of tyrosine is protected by t-butyl.

<400> 11

Ala Phe Ile Glu Tyr Leu Leu Glu Gly
 1 5

<210> 12
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of lysine is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C H₂)₁₈-CO₂-(t-butyl).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is Aib

<400> 12

Asp Lys Lys Ala Gln Xaa
 1 5

<210> 13
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib

<220>
 <221> MOD_RES
 <222> (6)..(6)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<400> 13

Gln Xaa Ala Phe Ile Glu Tyr Leu Leu Glu Gly
 1 5 10

<210> 14
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

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<220>
<221> MOD_RES
<222> (1)..(1)
<223> N-terminus is protected by Fmoc.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (2)..(2)
<223> The sidechain of lysine is protected by Boc.

<220>
<221> MOD_RES
<222> (3)..(3)
<223> Lys at position 3 is chemically modified through conjugation to
the epsilon-amino group of the K side-chain with
(2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C
H2)18-CO2-(t-butyl).

<400> 14

Asp Lys Lys Ala
1

<210> 15
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> N-terminus is protected by Boc.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The sidechain of tyrosine is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa at position 2 is Aib

<220>
<221> MOD_RES
<222> (3)..(3)
<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
<221> MOD_RES
<222> (5)..(5)
<223> The sidechain of threonine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (7)..(7)
<223> The sidechain of threonine is protected by t-butyl.

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<220>
<221> MOD_RES
<222> (8)..(8)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (9)..(9)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (10)..(10)
<223> The sidechain of tyrosine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (11)..(11)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa at position 13 is alpha-methyl-Leu

<220>
<221> MOD_RES
<222> (15)..(15)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (16)..(16)
<223> The sidechain of lysine is protected by Boc.

<220>
<221> MOD_RES
<222> (17)..(17)
<223> Lys at position 17 is chemically modified through conjugation to
the epsilon-amino group of the K side-chain with
(2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C
H2)18-CO2-(t-butyl).

<400> 15

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

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Lys Ala

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<210> 16
<211> 18
<212> PRT
<213> Artificial Sequence

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<220>
<223> Synthetic Construct

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<220>
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<222> (3)..(3)
<223> The sidechain of glutamic acid is protected by t-butyl.

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<220>
<221> MOD_RES

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<222> (4)..(4)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (11)..(11)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (12)..(12)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> Ser at position 18 is amidated as a C-terminal primary amide

<400> 16

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

Pro Ser

<210> 17
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of lysine is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C H₂)₁₈-CO₂-(t-butyl).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is Aib

<400> 17

Asp Lys Lys Ala Gln Xaa Ala
 1 5

<210> 18
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (8)..(8)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (12)..(12)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (13)..(13)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> Ser at position 19 is amidated as a C-terminal primary amide.

<400> 18

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

Pro Pro Ser

<210> 19
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MOD_RES
 <222> (6)..(6)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (14)..(14)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (15)..(15)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (21)..(21)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (21)..(21)
 <223> Ser at position 21 is amidated as a C-terminal primary amide

<400> 19

Gln Xaa Ala Phe Ile Glu Tyr Leu Leu Glu Gly Gly Pro Ser Ser Gly
 1 5 10 15

Ala Pro Pro Pro Ser
 20

<210> 20
 <211> 20
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> N-terminus is protected by Boc.

<220>

<221> MOD_RES

<222> (1)..(1)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MOD_RES

<222> (3)..(3)

<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>

<221> MOD_RES

<222> (5)..(5)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (7)..(7)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (8)..(8)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (9)..(9)

<223> The sidechain of aspartic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (10)..(10)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (11)..(11)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu

<220>

<221> MOD_RES

<222> (15)..(15)

<223> The sidechain of aspartic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (16)..(16)

<223> The sidechain of lysine is protected by Boc.^{15/48}

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(CH₂)₁₈-CO₂-(t-butyl).

<220>

<221> MOD_RES

<222> (19)..(19)

<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>

<221> MISC_FEATURE

<222> (20)..(20)

<223> Xaa at position 2 is Aib.

<400> 20

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

Lys Ala Gln Xaa
20

<210> 21

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> N-terminus is protected by Boc.

<220>

<221> MOD_RES

<222> (1)..(1)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MOD_RES

<222> (3)..(3)

<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>

<221> MOD_RES

<222> (5)..(5)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (7)..(7)

<223> The sidechain of threonine is protected by t-butyl.

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<220>
<221> MOD_RES
<222> (8)..(8)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (9)..(9)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (10)..(10)
<223> The sidechain of tyrosine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (11)..(11)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa at position 13 is alpha-methyl-Leu.

<220>
<221> MOD_RES
<222> (15)..(15)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (16)..(16)
<223> The sidechain of lysine is protected by Boc.

<220>
<221> MOD_RES
<222> (17)..(17)
<223> The sidechain of Lys at position 17 is protected by a protecting
group PG.

<220>
<221> MOD_RES
<222> (19)..(19)
<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
<221> MISC_FEATURE
<222> (20)..(20)
<223> Xaa at position 20 is Aib.

<400> 21

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

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Lys Ala Gln Xaa
      20

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<210> 22
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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<220>
<221> MOD_RES
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<223> N-terminus is protected by Boc.

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The sidechain of tyrosine is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa at position 2 is Aib.

<220>
<221> MOD_RES
<222> (3)..(3)
<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
<221> MOD_RES
<222> (5)..(5)
<223> The sidechain of threonine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (7)..(7)
<223> The sidechain of threonine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (8)..(8)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (9)..(9)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (10)..(10)
<223> The sidechain of tyrosine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (11)..(11)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa at position 13 is alpha-methyl-Leu.

<220>
<221> MOD_RES
<222> (15)..(15)
<223> The sidechain of aspartic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (16)..(16)
<223> The sidechain of lysine is protected by Boc.

<220>
<221> MOD_RES
<222> (17)..(17)

18/48
<223> The sidechain of lysine is protected by a protecting group PG.

<400> 22

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

Lys Ala

<210> 23

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>

<221> MISC_FEATURE

<222> (20)..(20)

<223> Xaa at position 20 is Aib.

<220>

<221> MOD_RES

<222> (20)..(20)

<223> The C-terminal hydroxyl is modified with -SR, wherein R can be 2,2,2-trifluoroethyl.

<400> 23

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

Lys Ala Gln Xaa
20

<210> 24

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The side chain of Ala is modified with -SH.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> Ser at position 19 is amidated as a C-terminal primary amide.

<400> 24

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

Pro Pro Ser

<210> 25
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with
 (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Aib.

<220>
 <221> MOD_RES
 <222> (20)..(20)
 <223> The C terminal hydroxyl is modified with -SR, wherein R can be 2,2,2-trifluoroethyl.

<400> 25

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

Lys Ala Gln Xaa
 20

<210> 26

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

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of Ala is modified with -SH.

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is Aib.

<220>
 <221> MOD_RES
 <222> (22)..(22)
 <223> Ser at position 22 is amidated as a C-terminal primary amide.

<400> 26

Ala Gln Xaa Ala Phe Ile Glu Tyr Leu Leu Glu Gly Gly Pro Ser Ser
 1 5 10 15

Gly Ala Pro Pro Pro Ser
 20

<210> 27
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> The C-terminal hydroxyl is modified with -SR, wherein R may be 2,2,2-trifluoroethyl.

<400> 27

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

Lys

<210> 28

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

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Boc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<400> 28

Tyr Xaa Gln Gly
 1

<210> 29
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is alpha-methyl-Phe(2F).

<220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa at position 10 is 4Pal..

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MISC_FEATURE
 <222> (16)..(16)
 <223> Xaa at position 16 is Orn.

<220>

<221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)2-(gamma-Glu)-CO-(CH2)16-CO 2H.

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (24)..(24)
 <223> Xaa at position 24 is D-Glu.

<220>
 <221> MISC_FEATURE
 <222> (25)..(25)
 <223> Xaa at position 25 is alpha-methyl-Tyr.

<220>
 <221> MOD_RES
 <222> (39)..(39)
 <223> Ser at position 39 is amidated as a C-terminal primary amide.

<400> 29

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

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

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 30
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Boc.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is alpha-mehtyl-Phe(2F).

<220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa at position 10 is 4Pal.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<400> 30

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

<210> 31
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Boc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of threonine is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is alpha-methyl-Phe(2F).

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of threonine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (8)..(8)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (9)..(9)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (10)..(10)

<223> Xaa at position 10 is 4Pal.

<220>

<221> MOD_RES

<222> (11)..(11)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<400> 31

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

<210> 32

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa at position 6 is D-Glu.

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa at position 7 is alpha-methyl-Tyr.

<400> 32

Gln	Xaa	Glu	Phe	Ile	Xaa	Xaa	Leu	Ile	Glu	Gly
1				5					10	

<210> 33

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 33

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

<210> 34

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Boc.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is alpha-methyl-Phe(2F).

<400> 34

Tyr Xaa Glu Gly Thr Xaa Thr Ser
 1 5

<210> 35
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is D-Glu.

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa at position 7 is alpha-methyl-Tyr.

<220>
 <221> MOD_RES
 <222> (21)..(21)
 <223> Ser at position 21 is amidated as a C-terminal primary amide.

<400> 35

Gln Xaa Glu Phe Ile Xaa Xaa Leu Ile Glu Gly Gly Pro Ser Ser Gly
 1 5 10 15

Ala Pro Pro Pro Ser
 20

<210> 36
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (4)..(4)
 <223> Xaa at position 4 is D-Glu.

<220>
 <221> MISC_FEATURE
 <222> (5)..(5)
 <223> Xaa at position 5 is alpha-methyl-Tyr.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> Ser at position 19 is amidated as a C-terminal primary amide.

<400> 36

Glu Phe Ile Xaa Xaa Leu Ile Glu Gly Gly Pro Ser Ser Gly Ala Pro
 1 5 10 15

Pro Pro Ser

<210> 37
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa at position 7 is D-Glu.

<220>
 <221> MISC_FEATURE
 <222> (8)..(8)
 <223> Xaa at position 8 is alpha-methyl-Tyr.

<220>
 <221> MOD_RES
 <222> (22)..(22)
 <223> Ser at position 22 is amidated as a C-terminal primary amide.

<400> 37

Cys Gln Xaa Glu Phe Ile Xaa Xaa Leu Ile Glu Gly Gly Pro Ser Ser
 1 5 10 15

Gly Ala Pro Pro Pro Ser
 20

<210> 38
 <211> 15
 <212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> N-terminus is protected by Fmoc.

<220>

<221> MOD_RES

<222> (3)..(3)

<223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa at position 6 is Aib.

<400> 38

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

<210> 39

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>

<221> MISC_FEATURE

<222> (20)..(20)

<223> Xaa at position 20 is Aib.

<220>

<221> MOD_RES

<222> (22)..(22)

<223> The C-terminal is -OR, wherein R is -CH₂-C(O)-Val-NH₂.

<400> 39

Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Xaa^{28/48} Leu Asp Lys
 1 5 10 15

Lys Ala Gln Xaa Cys Pro
 20

<210> 40
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> The C-terminal is -OR, wherein R is -CH₂-C(O)-Val-NH₂.

<400> 40

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

Lys Cys Pro

<210> 41
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> The C-terminal is -OR, wherein R is -CH₂-C(=O)-Val-NH₂.

<400> 41

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

Lys Cys Pro

<210> 42
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Orn.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of Orn is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)2-(gamma-Glu(t-butyl))-CO-(CH₂)₁₆-CO₂-(t-butyl).

<400> 42

Asp Xaa Lys Ala
 1

<210> 43
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE

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

<220>
<221> MOD_RES
<222> (3)..(3)
<223> The sidechain of glutamic acid is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa at position 6 is D-Glu.

<220>
<221> MOD_RES
<222> (6)..(6)
<223> The sidechain of D-glutamic acid is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa at position 7 is alpha-methyl-Tyr.

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> The sidechain of alpha-methyl-tyrosine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (10)..(10)
<223> The sidechain of glutamic acid is protected by t-butyl.

<220>
<221> MOD_RES
<222> (14)..(14)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (15)..(15)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (21)..(21)
<223> The sidechain of serine is protected by t-butyl.

<220>
<221> MOD_RES
<222> (21)..(21)
<223> Ser at position 21 is amidated as a C-terminal primary amide.

<400> 43

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Gln Xaa Glu Phe Ile Xaa Xaa Leu Ile Glu Gly Gly Pro Ser Ser Gly
1           5           10          15

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Ala Pro Pro Pro Ser
      20

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<210> 44
<211> 18
<212> PRT
<213> Artificial Sequence

<220>

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<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> N-terminus is protected by Boc.

<220>

<221> MOD_RES

<222> (1)..(1)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MOD_RES

<222> (3)..(3)

<223> The sidechain of glutamic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (5)..(5)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa at position 6 is alpha-methyl-Phe(2F).

<220>

<221> MOD_RES

<222> (7)..(7)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (8)..(8)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (9)..(9)

<223> The sidechain of aspartic acid is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (10)..(10)

<223> Xaa at position 10 is 4Pal.

<220>

<221> MOD_RES

<222> (11)..(11)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MOD_RES

<222> (15)..(15)

<223> The sidechain of aspartic acid is protected by t-butyl.

<220>

<221> MISC_FEATURE
 <222> (16)..(16)
 <223> Xaa at position 16 is Orn.

<220>
 <221> MOD_RES
 <222> (16)..(16)
 <223> The sidechain of Orn is protected by Boc.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)2-(gamma-Glu(t-butyl))-CO-(CH₂)₁₆-CO₂-(t-butyl).

<400> 44

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

Lys Ala

<210> 45
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of lysine is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(CH₂)₁₈-CO₂-(t-butyl).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is Aib.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (11)..(11)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (14)..(14)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<400> 45

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

<210> 46
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of lysine is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C H₂)₁₈-CO₂-(t-butyl).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is Aib.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>

<221> MOD_RES
 <222> (11)..(11)
 <223> The sidechain of tyrosine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (14)..(14)
 <223> The sidechain of glutamic acid is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (25)..(25)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (25)..(25)
 <223> Ser at position 25 is amidated as a C-terminal primary amide.

 <400> 46

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

Pro Ser Ser Gly Ala Pro Pro Pro Ser
 20 25

<210> 47
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (2)..(2)
 <223> The sidechain of lysine is protected by Boc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> Lys at position 3 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C H₂)₁₈-CO₂-(t-butyl).

<220>
 <221> MOD_RES
 <222> (5)..(5)

<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa at position 6 is Aib.

<220>

<221> MOD_RES

<222> (10)..(10)

<223> The sidechain of glutamic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (11)..(11)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (14)..(14)

<223> The sidechain of glutamic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (18)..(18)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (19)..(19)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (25)..(25)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (25)..(25)

<223> Ser at position 25 is amidated as a C-terminal primary amide.

<400> 47

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

Pro	Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser
			20					25

<210> 48

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MOD_RES

<222> (1)..(1)

<223> N-terminus is protected by Boc.

<220>

<221> MOD_RES

<222> (1)..(1)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MOD_RES

<222> (3)..(3)

<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>

<221> MOD_RES

<222> (5)..(5)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (7)..(7)

<223> The sidechain of threonine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (8)..(8)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (9)..(9)

<223> The sidechain of aspartic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (10)..(10)

<223> The sidechain of tyrosine is protected by t-butyl.

<220>

<221> MOD_RES

<222> (11)..(11)

<223> The sidechain of serine is protected by t-butyl.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MOD_RES

<222> (15)..(15)

<223> The sidechain of aspartic acid is protected by t-butyl.

<220>

<221> MOD_RES

<222> (16)..(16)

<223> The sidechain of lysine is protected by Boc.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu(t-butyl))-CO-(C H₂)₁₈-CO₂-(t-butyl).

<220>

<221> MOD_RES

<222> (19)..(19)

<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Aib.

 <220>
 <221> MOD_RES
 <222> (24)..(24)
 <223> The sidechain of glutamic acid is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (25)..(25)
 <223> The sidechain of tyrosine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (28)..(28)
 <223> The sidechain of glutamic acid is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (32)..(32)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (33)..(33)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (39)..(39)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (39)..(39)
 <223> Ser at position 39 is amidated as a C-terminal primary amide.

<400> 48

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

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

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 49
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (8)..(8)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (12)..(12)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (13)..(13)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> Ser at position 19 is amidated as a C-terminal primary amide.

<400> 49

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

Pro Pro Ser

<210> 50
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with

(2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)^{39/48}18-CO₂H.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> The C-terminus is modified with N-NH₂.

<400> 50

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

Lys

<210> 51

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)18-CO₂H.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> The C-terminus is modified with S-(4-OH-phenyl).

<400> 51

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

Lys

<210> 52

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is Aib.

<220>
 <221> MOD_RES
 <222> (22)..(22)
 <223> Ser at position 22 is amidated as a C-terminal primary amide.

<400> 52

Cys Gln Xaa Ala Phe Ile Glu Tyr Leu Leu Glu Gly Gly Pro Ser Ser
 1 5 10 15

Gly Ala Pro Pro Pro Ser
 20

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

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with
 (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>
 <221> MISC_FEATURE
 <222> (20)..(20)
 <223> Xaa at position 20 is Aib.

<220>
 <221> MOD_RES
 <222> (39)..(39)
 <223> Ser at position 39 is amidated as a C-terminal primary amide.

<400> 53

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

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

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 54
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂H.

<220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> The C-terminus is modified with -(CO)-R, wherein R is Pro-(glycolic acid)-Val or Pro-(glycolic acid).

<400> 54

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

Lys Cys

<210> 55
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Fmoc.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (4)..(4)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> Ser at position 10 is amidated as a C-terminal primary amide.

<400> 55

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

<210> 56
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> N-terminus is protected by Boc.

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MOD_RES
 <222> (3)..(3)
 <223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
 <221> MOD_RES
 <222> (5)..(5)
 <223> The sidechain of threonine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of threonine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (8)..(8)
 <223> The sidechain of serine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (9)..(9)
 <223> The sidechain of aspartic acid is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (11)..(11)
 <223> The sidechain of serine is protected by t-butyl.

 <220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

 <220>
 <221> MOD_RES
 <222> (15)..(15)
 <223> The sidechain of aspartic acid is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> The sidechain of lysine is modified with mtt.

 <220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> The sidechain of cysteine is protected by t-butyl.

 <220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> The C-terminus is modified with Pro-(glycolic acid)-Val and Val
 is amidated.

 <400> 56

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

Lys Cys

<210> 57
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to
 the epsilon-amino group of the K side-chain with
 (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)-(gamma-Glu)-CO-(CH₂)₁₈-CO₂
 H.

<220>
 <221> MOD_RES
 <222> (18)..(18)
 <223> The C-terminus is modified with -Pro-(glycolic acid)-Val, and Val is amidated.
 <400> 57

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

Lys Cys

<210> 58
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is alpha-methyl-Phe(2F).

<220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa at position 10 is 4Pal.

<220>
 <221> MISC_FEATURE
 <222> (13)..(13)
 <223> Xaa at position 13 is alpha-methyl-Leu.

<220>
 <221> MISC_FEATURE
 <222> (16)..(16)
 <223> Xaa at position 16 is Orn.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)2-(gamma-Glu)-CO-(CH₂)₁₆-CO 2H.

<220>
 <221> MOD_RES
 <222> (17)..(17)
 <223> The C-terminus is modified with N-NH₂.

<400> 58

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

Lys

<210> 59
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa at position 3 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa at position 7 is D-Glu.

<220>
 <221> MISC_FEATURE
 <222> (8)..(8)
 <223> Xaa at position 8 is alpha-methyl-Tyr.

<220>
 <221> MOD_RES
 <222> (23)..(23)
 <223> Ser at position 23 is amidated as a C-terminal primary amide.

<400> 59

Cys Gln Xaa Glu Phe Ile Xaa Xaa Leu Ile Glu Gly Gly Gly Pro Ser
 1 5 10 15

Ser Gly Ala Pro Pro Pro Ser
 20

<210> 60
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa at position 2 is Aib.

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa at position 6 is alpha-methyl-Phe(2F).

<220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa at position 10 is 4Pal.

<220>
 <221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MISC_FEATURE

<222> (16)..(16)

<223> Xaa at position 16 is Orn.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to the epsilon-amino group of the K side-chain with (2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)2-(gamma-Glu)-CO-(CH₂)₁₆-CO 2H.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> The C-terminus is modified with -S-phenyl.

<400> 60

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

Lys

<210> 61

<211> 40

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa at position 2 is Aib.

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> Xaa at position 6 is alpha-methyl-Phe(2F).

<220>

<221> MISC_FEATURE

<222> (10)..(10)

<223> Xaa at position 10 is 4Pal.

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa at position 13 is alpha-methyl-Leu.

<220>

<221> MISC_FEATURE

<222> (16)..(16)

<223> Xaa at position 16 is Orn.

<220>

<221> MOD_RES

<222> (17)..(17)

<223> Lys at position 17 is chemically modified through conjugation to

47/48

the epsilon-amino group of the K side-chain with
(2-[2-(2-Amino-ethoxy)-ethoxy]-acetyl)2-(gamma-Glu)-CO-(CH₂)₁₆-CO
2H.

<220>
<221> MISC_FEATURE
<222> (20)..(20)
<223> Xaa at position 20 is Aib.

<220>
<221> MISC_FEATURE
<222> (24)..(24)
<223> Xaa at position 24 is D-Glu.

<220>
<221> MISC_FEATURE
<222> (25)..(25)
<223> Xaa at position 25 is alpha-methyl-Tyr.

<220>
<221> MOD_RES
<222> (39)..(39)
<223> Ser at position 39 is amidated as a C-terminal primary amide.

<400> 61

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

Lys	Cys	Gln	Xaa	Glu	Phe	Ile	Xaa	Xaa	Leu	Ile	Glu	Gly	Gly	Gly	Pro
			20					25					30		

Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser
		35					40

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

<220>
<223> Synthetic Construct

<220>
<221> MOD_RES
<222> (1)..(1)
<223> The sidechain of glutamine is protected by Trityl (Trt).

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa at position 2 is Aib.

<220>
<221> MOD_RES
<222> (3)..(3)
<223> The sidechain of glutamic acid is protected by t-butyl.

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa at position 6 is D-Glu.

<220>
<221> MOD_RES

<222> (6)..(6)
 <223> The sidechain of D-Glu is protected by t-butyl.

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa at position 7 is alpha-methyl-Tyr.

<220>
 <221> MOD_RES
 <222> (7)..(7)
 <223> The sidechain of alpha-methyl-tyrosine is protected by t-butyl.

<220>
 <221> MOD_RES
 <222> (10)..(10)
 <223> The sidechain of glutamic acid is protected by t-butyl.

<400> 62

Gln	Xaa	Glu	Phe	Ile	Xaa	Xaa	Leu	Ile	Glu	Gly
1				5					10	