

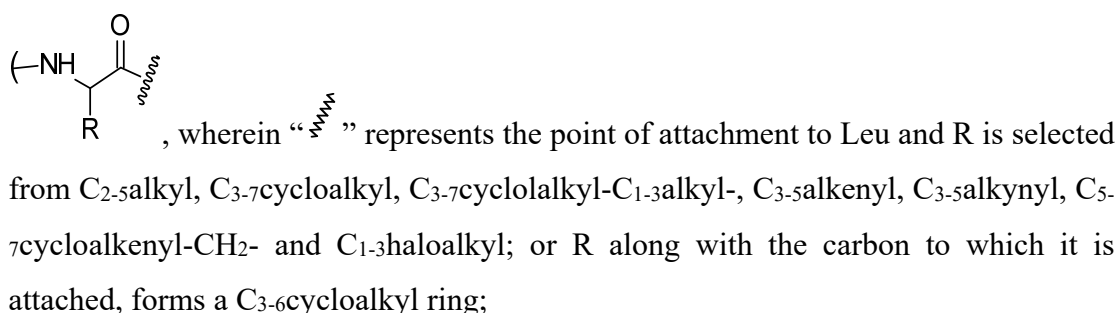
Claims:

1. A polypeptide or a pharmaceutically acceptable salt thereof comprising the amino acid sequence:

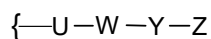
Y-X1-E-G-T-F-T-S-D-Y-S-I-X2-L-Xaa15-K-I-A-Xaa19-X3-Xaa21-F-V-Xaa24-W-
L-X4-A-G-G-P-S-S-G-A-P-P-P-S-X5-X6-X7-X8-X9-X10-X11 (Seq. ID 1)

wherein X1 is Aib, (L)-norvaline or (D)-norvaline;

X2 is selected from Aib, Leu, (D)-Leu, Val, (D)-Val, Ile, (D)-Ile, and L or D isomer of an amino acid of the Formula



X3 is Gln or Lys; wherein, when X3 is Lys, the side chain amino (ε amino) group of Lys is acylated with a moiety:



wherein U is —C(O)—CH₂—O—(CH₂)₂—O—(CH₂)₂—NH—} wherein } is point of attachment with group W;

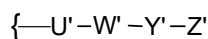
W is selected from a group consisting of —C(O)—NH—(CH₂)_p—NH—], —C(O)—C(CH₃)₂—NH—] and —C(O)—CH₂—O—(CH₂)₂—O—(CH₂)₂—NH—], wherein p is 3 or 4 and wherein] is point of attachment with group Y;

Y is —C(O)—(CH₂)₂—CH(COOH)NH— and — is point of attachment with the group Z;

Z is —C(O)—(CH₂)_n—COOH or —C(O)—(CH₂)_n—CH₃ wherein n is an integer from 14 to 20;

X4 is Leu, Ile or Glu;

X5 is absent, Arg or Lys; wherein when X5 is Lys, the side chain amino (ε amino) group of Lys is acylated with a moiety:



wherein U' is $-\text{C}(\text{O})-\text{CH}_2-\text{O}-(\text{CH}_2)_2-\text{O}-(\text{CH}_2)_2-\text{NH}-\}$ wherein $\}$ is point of attachment with group W';

W' is selected from a group consisting of $-\text{C}(\text{O})-\text{NH}-(\text{CH}_2)_q-\text{NH}-]$, $-\text{C}(\text{O})-\text{C}(\text{CH}_3)_2-\text{NH}-]$ and $-\text{C}(\text{O})-\text{CH}_2-\text{O}-(\text{CH}_2)_2-\text{O}-(\text{CH}_2)_2-\text{NH}-]$, wherein q is 3 or 4 and wherein] is point of attachment with group Y';

Y' is $-\text{C}(\text{O})-(\text{CH}_2)_2-\text{CH}(\text{COOH})\text{NH}-$ and $-$ is point of attachment with the group Z';

Z' is $-\text{C}(\text{O})-(\text{CH}_2)_m-\text{COOH}$ or $-\text{C}(\text{O})-(\text{CH}_2)_m-\text{CH}_3$ wherein m is an integer from 14 to 20;

X6 is absent or Lys;

10 X7 is absent or Lys;

X8 is absent or Lys;

X9 is absent or Lys;

X10 is absent or Lys;

X11 is absent or Lys;

15 Xaa15 is Asp or Glu;

Xaa19 is Gln or Ala;

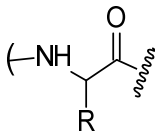
Xaa21 is Ala or Glu;

Xaa24 is Gln or Asn;

20 wherein the acid group of the C terminal amino acid is a free carboxylic acid group or is amidated as a C-terminal primary amide and at least one of X3 and X5 is Lys; and

with the proviso that when X1 is Aib, X2 is not Aib.

2. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 1, wherein X1 is Aib.
3. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 1, wherein X1 is (L)-norvaline.
4. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 1, wherein X2 is Aib, Leu, Ile or L or D isomer of an amino acid of the Formula:


, wherein “” represents the point of attachment to Leu, and R is selected from C₂₋₅alkyl, C₃₋₇cycloalkyl, C₃₋₇cyclolalkyl-C₁₋₃alkyl-, C₃₋₅alkenyl, C₃₋₅alkynyl, C₅₋₇cycloalkenyl-CH₂-, and C₁₋₃haloalkyl; or R along with the Carbon to which it is attached to, forms C₃₋₆cycloalkyl ring.

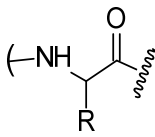
5 5. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 4, wherein R is C₂₋₅alkyl.

6. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 5, wherein R is ethyl.

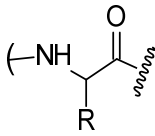
7. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 5, 10 wherein R is n-propyl.

8. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 5, wherein R is n-butyl.

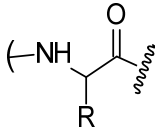
9. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 2, wherein X₂ is L or D isomer of an amino acid of the Formula:

15 
, wherein R is n-propyl.

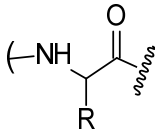
10. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 3, wherein X₂ is L or D isomer of an amino acid of the Formula:


, wherein R is n-propyl.

11. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 2, 20 wherein X₂ is L or D isomer of an amino acid of the Formula:


, wherein R is n-butyl.

12. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 2, wherein X₂ is L or D isomer of an amino acid of the Formula:


, wherein R is ethyl.

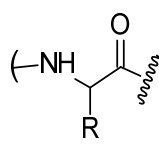
13. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 3, wherein X2 is Aib.

14. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 2, wherein X2 is Leu.

5 15. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 2, wherein X2 is Ile.

16. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-15, wherein X5, X6, X7, X8, X9, X10 and X11 are absent.

10 17. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 2, wherein X2 is L or D isomer of an amino acid of the Formula:



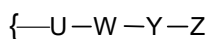
, wherein R is n-propyl, and X5 is Arg.

18. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 1, comprising an amino acid sequence:

15 Y-Aib-E-G-T-F-T-S-D-Y-S-I-X2-L-D-K-I-A-Q-X3-A-F-V-Q-W-L-X4-A-G-G-P-S-S-G-A-P-P-P-S-X5-X6-X7-X8-X9-X10-X11 (Seq. ID 2)

wherein X2 is Leu, Ile, (L)-norvaline, (L)-homoalanine or (L)-norleucine;

X3 is Lys, wherein the side chain amino (ϵ amino) group of Lys is acylated with a moiety:



20 wherein U is $\text{---C(O)---CH}_2\text{---O---(CH}_2\text{)}_2\text{---O---(CH}_2\text{)}_2\text{---NH---}$ wherein } is point of attachment with group W;

W is selected from a group consisting of $\text{---C(O)---NH---(CH}_2\text{)}_p\text{---NH---}$, $\text{---C(O)---C(CH}_3\text{)}_2\text{---NH---}$ and $\text{---C(O)---CH}_2\text{---O---(CH}_2\text{)}_2\text{---O---(CH}_2\text{)}_2\text{---NH---}$, wherein p is 3 or 4 and wherein] is point of attachment with group Y;

25 Y is $\text{---C(O)---(CH}_2\text{)}_2\text{---CH(COOH)NH---}$ and --- is point of attachment with the group Z;

Z is $\text{---C(O)---(CH}_2\text{)}_n\text{---COOH}$ or $\text{---C(O)---(CH}_2\text{)}_n\text{---CH}_3$ wherein n is an integer from 14 to 20; X4 is Ile;

X5 is absent or Arg;

X6 is absent or Lys;

30 X7 is absent or Lys;

X8 is absent or Lys;

X9 is absent or Lys;

X10 is absent or Lys;

X11 is absent or Lys;

wherein the acid group of the C terminal amino acid is a free carboxylic acid group or
is amidated as a C-terminal primary amide.

19. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 18,
wherein X2 is (L)-norvaline.

20. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 18,
wherein X2 is (L)-norleucine.

21. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 18,
wherein X2 is (L)-homoalanine.

22. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 18,
wherein X2 is Leu.

23. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 18,
wherein X2 is Ile.

24. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of
the claims 18-23, wherein X5, X6, X7, X8, X9, X10 and X11 are absent.

25. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 19,
wherein X5 is Arg.

26. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 19,
wherein X4 is Ile;

X5, X6, X7, X8, X9, X10 and X11 are absent;

W is $-C(O)-C(CH_3)_2-NH-$; and

Z is $-C(O)-(CH_2)_n-COOH$, wherein n is 18.

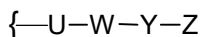
27. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 1,
comprising an amino acid sequence:

Y-X1-E-G-T-F-T-S-D-Y-S-I-X2-L-D-K-I-A-Q-X3-A-F-V-Q-W-L-X4-A-G-G-P-S-S-
G-A-P-P-P-S (Seq. ID 3)

wherein X1 is Aib or (L)-norvaline; X2 is Aib, Leu, Ile, (L)-norvaline, (L)-homoalanine
or (L)-norleucine;

X4 is Ile;

X3 is Lys wherein the side chain amino (ϵ amino) group of Lys is acylated with a
moiety:



wherein U is $-C(O)-CH_2-O-(CH_2)_2-O-(CH_2)_2-NH-\}$ wherein $\}$ is point of attachment with group W;

W is selected from a group consisting of $-C(O)-NH-(CH_2)_p-NH-]$, $-C(O)-C(CH_3)_2-NH-]$ and $-C(O)-CH_2-O-(CH_2)_2-O-(CH_2)_2-NH-]$, wherein p is 3 or 4 and wherein $]$ is point of attachment with group Y;

Y is $-C(O)-(CH_2)_2-CH(COOH)NH--$ and $--$ is point of attachment with the group Z;

Z is $-C(O)-(CH_2)_n-COOH$ or $-C(O)-(CH_2)_n-CH_3$ wherein n is an integer from 14 to 20;

and wherein the acid group of the C terminal amino acid is a free carboxylic acid group or is amidated as a C-terminal primary amide;

with a proviso that when X1 is Aib, X2 is not Aib.

28. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is Aib.

29. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is (L)-norvaline.

30. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X2 is Aib.

31. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X2 is Leu.

32. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X2 is Ile.

33. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X2 is (L)-norvaline.

34. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X2 is (L)-norleucine.

35. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X2 is (L)-homoalanine.

36. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is Aib and X2 is (L)-norvaline.

37. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 and X2 are (L)-norvaline.

38. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is Aib and X2 is (L)-norleucine.
39. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is Aib and X2 is (L)-homoalanine.
- 5 40. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is (L)-norvaline and X2 is Aib.
41. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is Aib and X2 is Leu.
42. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27,
10 wherein X1 is Aib and X2 is Ile.
43. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 27, wherein X1 is Aib;
X2 is (L)-norvaline;
W is $\text{--C(O)--C(CH}_3)_2\text{--NH--]}$; and
15 Z is $\text{--C(O)--(CH}_2)_n\text{--COOH}$, wherein n is 18.
44. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-43, wherein W and/or W' is $\text{--C(O)--C(CH}_3)_2\text{--NH--]}$ or $\text{--C(O)--CH}_2\text{--O--(CH}_2)_2\text{--O--(CH}_2)_2\text{--NH--]}$.
45. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of
20 the claims 1-43, wherein Z and/or Z' is $\text{--C(O)--(CH}_2)_n\text{--COOH}$ and/or $\text{--C(O)--(CH}_2)_m\text{--COOH}$ and n or m is 16 or 18.
46. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-43, wherein W and/or W' is $\text{--C(O)--C(CH}_3)_2\text{--NH--]}$, Z and/or Z' is $\text{--C(O)--(CH}_2)_n\text{--COOH}$ and/or $\text{--C(O)--(CH}_2)_m\text{--COOH}$ and n or m is 18.
- 25 47. The polypeptide or pharmaceutically acceptable salt thereof according to any one of the claims 1-43, wherein W and/or W' is $\text{--C(O)--C(CH}_3)_2\text{--NH--]}$, Z and/or Z' is $\text{--C(O)--(CH}_2)_n\text{--COOH}$ and/or $\text{--C(O)--(CH}_2)_m\text{--COOH}$ and n or m is 16.
48. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-25 and 27 to 42, wherein W and/or W' is $\text{--C(O)--CH}_2\text{--O--(CH}_2)_2\text{--O--(CH}_2)_2\text{--NH--]}$, Z and/or Z' is $\text{--C(O)--(CH}_2)_n\text{--COOH}$ and/or $\text{--C(O)--(CH}_2)_m\text{--COOH}$ and n or m is
30 16.
49. The polypeptide or pharmaceutically acceptable salt thereof according to any one of the claims 1-25 and 27 to 42, wherein W and/or W' is $\text{--C(O)--CH}_2\text{--O--(CH}_2)_2\text{--O--(CH}_2)_2\text{--}$

NH-], Z and/or Z' is $-C(O)-(CH_2)_n-COOH$ and/or $-C(O)-(CH_2)_m-COOH$ and n or m is 18.

50. The polypeptide or a pharmaceutically acceptable salt thereof according to claim 1, comprising an amino acid sequence selected from the group consisting of:

5 i.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile L-norvaline Leu Asp Lys Ile Ala
Gln Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro
Pro Ser-NH₂ (Seq ID: 04)

ii.)Tyr L-norvaline Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Aib Leu Asp Lys Ile Ala
Gln Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro
10 Pro Ser-NH₂ (Seq ID: 05)

iii.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Leu Leu Asp Lys Ile Ala Gln
Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro
Ser-NH₂ (Seq ID: 06)

iv.)Tyr L-norvaline Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile L-norvaline Leu Asp
15 Lys Ile Ala Gln Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala
Pro Pro Pro Ser-NH₂ (Seq ID: 07)

v.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile L-norvaline Leu Glu Lys Ile Ala
Ala Gln Glu Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro
Pro Ser Lys-NH₂ (Seq ID: 08)

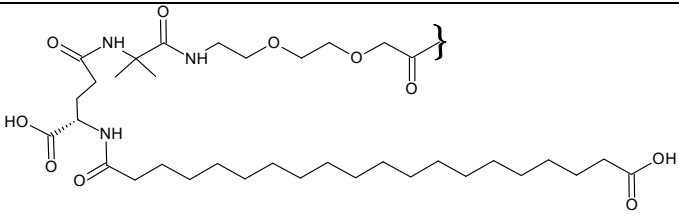
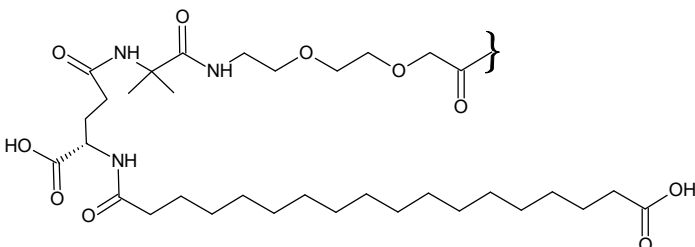
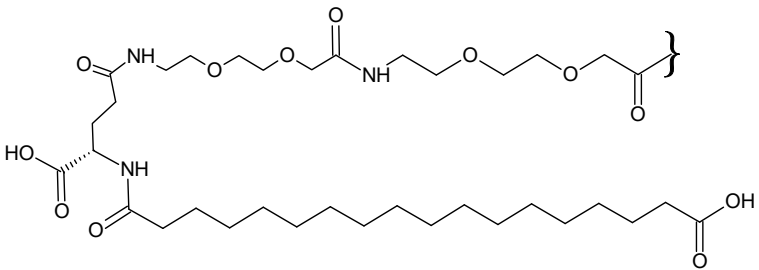
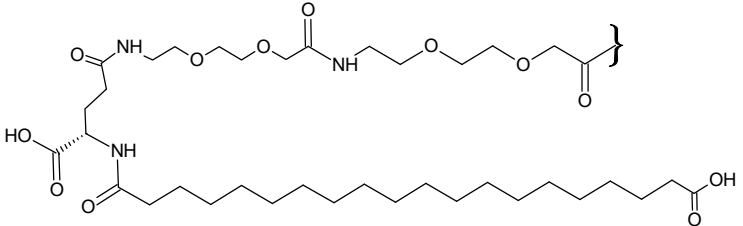
vi.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile L-norvaline Leu Asp Lys Ile Ala
Gln Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro
Pro Ser Arg (Seq ID: 09)

vii.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile L-homoalanine Leu Asp Lys Ile
Ala Gln Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro
25 Pro Pro Ser-NH₂ (Seq ID: 10)

viii.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile L-norleucine Leu Asp Lys Ile
Ala Gln Lys Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro
Pro Pro Ser-NH₂ (Seq ID: 11)

ix.)Tyr Aib Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ile Leu Asp Lys Ile Ala Gln Lys
30 Ala Phe Val Gln Trp Leu Ile Ala Gly Gly Pro Ser Ser Gly Ala Pro Pro Pro Ser-
NH₂ (Seq ID: 12)

51. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-50, wherein -U-W-Y-Z and/or -U'-W'-Y'-Z' is selected from the group consisting of:

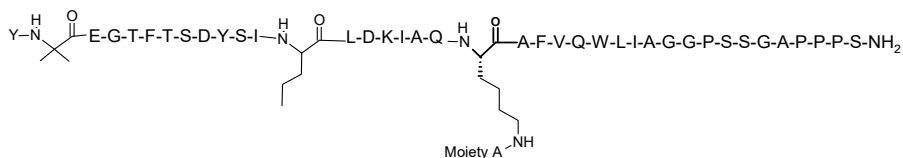
	Moiety A;
	Moiety B;
	Moiety C; and
	Moiety D

52. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-51, wherein the C terminal amino acid is amidated as a C-terminal primary amide.

53. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-51, wherein the C terminal amino acid is a free carboxylic acid.

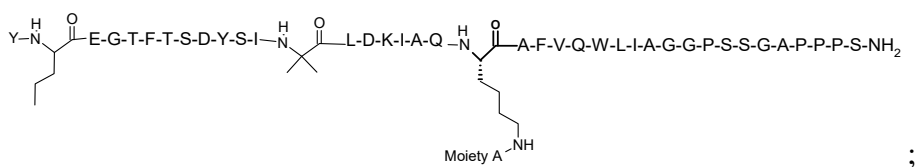
54. A polypeptide or a pharmaceutically acceptable salt thereof, selected from the group consisting of:

Compound 1:

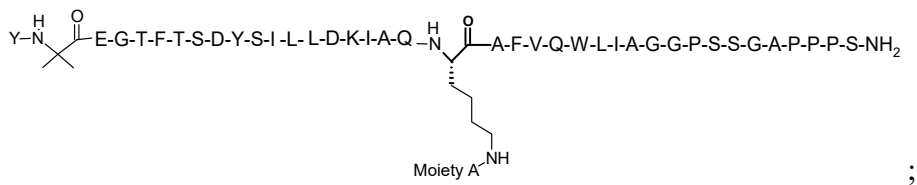


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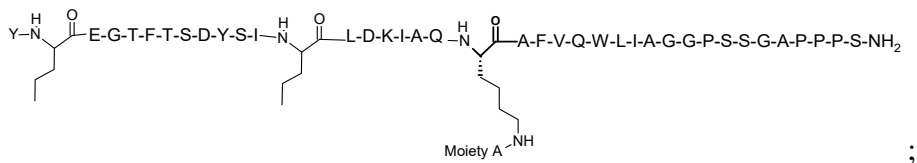
Compound 2:



Compound 3:

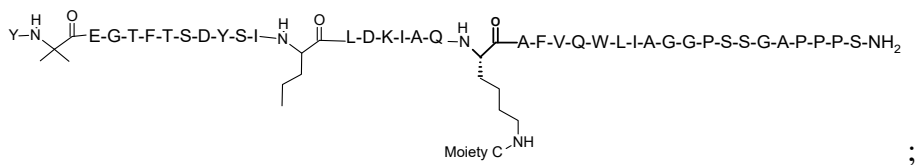


Compound 4:

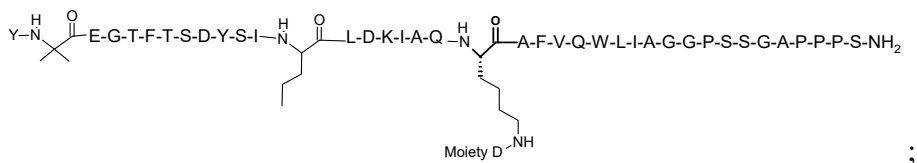


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Compound 5:

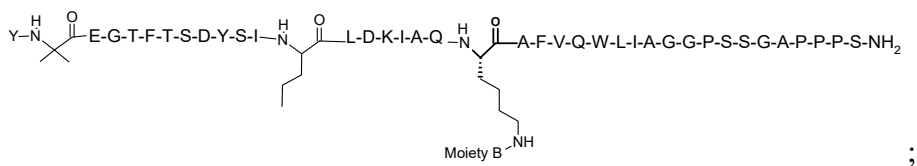


Compound 6:

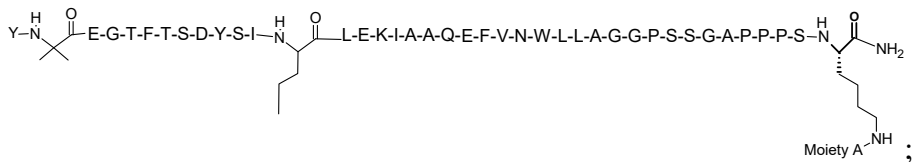


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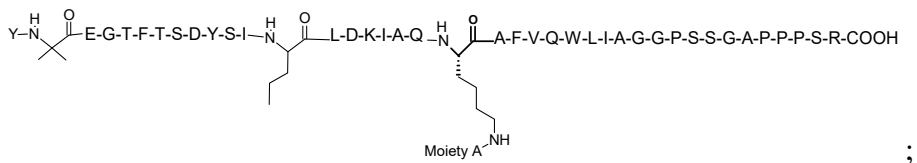
Compound 7:



Compound 8:



Compound 9:

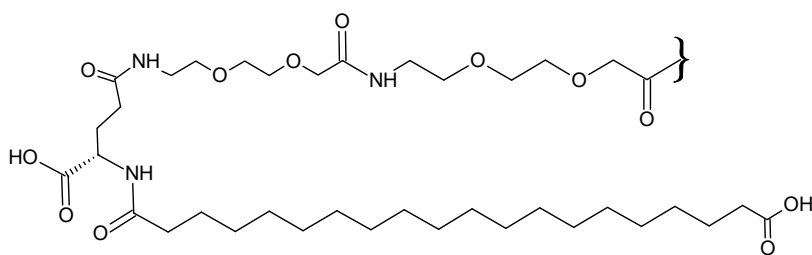


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CC(C)(N)C(=O)E-G-T-F-T-S-D-Y-S-I-NH-C(=O)CC-NH-C(=O)C(F)(F)F-NH-Moiety ACC(C)(N)C(=O)E-G-T-F-T-S-D-Y-S-I-N-C(=O)CCCCC(=O)LD-K-I-A-Q-N[C@@H](CCCCN)C(=O)AF-V-Q-W-L-I-A-G-G-P-S-S-G-A-P-P-P-S-NH2YNC(C)(C)C(=O)E-G-T-F-T-S-D-Y-S-I-I-L-D-K-I-A-Q-N[C@@H](CCCCN)C(=O)A-F-V-Q-W-L-I-A-G-G-P-S-S-G-A-P-P-S-NH2CC(C)(NC(=O)CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC(=O)N[C@@H](C(=O)O)CC(=O)NC(C)(C)C(=O)NCCOCCOCC(=O)O)C(=O)OCC(C)(NC(=O)CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC(=O)N[C@@H](C(=O)O)CCNC(=O)C(C)(C)C(=O)NCCOCOCOC(=O)O)C(=O)OOC(=O)CCCCCCCCCCCCCCCCCCCCCCC(=O)N[C@@H](CCC(=O)NCCOCOCOC(=O)NCCOCOCOC(=O)NCCOCOC(=O)O)C(=O)O

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55. A pharmaceutical composition comprising a polypeptide or a pharmaceutically acceptable salt thereof according to any one of the claims 1-54, and one or more of pharmaceutically acceptable excipient.

56. A pharmaceutical composition according to claim 55 for use as a medicament.

57. Use of Aa pharmaceutical composition according to claim 55 in the preparation of a medicament for use in the treatment or prevention of a disease in a patient, wherein said disease is selected from the group consisting of hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, hyperlipidemia, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers.

~~58. A pharmaceutical composition for use according to claim 57, wherein said disease is selected from the group consisting of hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, hyperlipidemia, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers.~~

~~59.~~ 58. A pharmaceutical composition for The use according to claims 56-5857, wherein said pharmaceutical compositionmedicament is adapted to be provided simultaneously, separately, or sequentially in combination with an effective amount of one or more additional therapeutic agents.

~~60. A method of treating or preventing hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, hyperlipidemia, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers in a patient, wherein said method comprises administering to a patient in need thereof, an effective amount of a pharmaceutical composition according to claim 55.~~

~~61. The method according to claim 60, further comprising administering simultaneously, separately, or sequentially in combination with an effective amount of one or more therapeutic agents.~~

~~62. A pharmaceutical composition according to claim 55, for use in the preparation of a medicament for the treatment or prevention of hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers.~~

~~63-59.~~ A polypeptide or a pharmaceutically acceptable salt thereof according to any one of claims 1-54 for use as a medicament.

~~64-60.~~ A Use of a polypeptide or a pharmaceutically acceptable salt thereof according to any one of claims 1-54 in the preparation of a medicament for use in the treatment or prevention of a disease in a patient, wherein said disease is selected from the group consisting of hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, hyperlipidemia, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers.

~~65. A polypeptide or a pharmaceutically acceptable salt thereof for use according to claim 64, wherein said disease is selected from the group consisting of hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, hyperlipidemia, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers.~~

~~66-61.~~ The polypeptide or a pharmaceutically acceptable salt thereof use according to claims 63-6560, wherein said polypeptide or pharmaceutically acceptable salt thereof medicament is adapted to be provided simultaneously, separately, or sequentially in combination with an effective amount of one or more additional therapeutic agents.

~~67. A method of treating or preventing hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, hyperlipidemia, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers in a patient, comprising administering to a patient in need thereof, an effective~~

amount of the polypeptide or pharmaceutically acceptable salt thereof according to any one of claims 1-54.

5 ~~68. The method according to any one of claims 67, further comprising administering simultaneously, separately, or sequentially in combination with an effective amount of one or more therapeutic agents.~~

10 ~~69. The polypeptide or a pharmaceutically acceptable salt thereof according to any one of claims 1-54, for use in the preparation of a medicament for the treatment or prevention of hyperglycemia, type 2 diabetes, impaired glucose tolerance, type 1 diabetes, obesity, hypertension, syndrome X, dyslipidemia, cognitive disorders, atherosclerosis, myocardial infarction, coronary heart disease, stroke, inflammatory bowel syndrome, dyspepsia, alcoholism and gastric ulcers.~~